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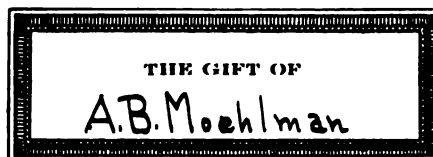
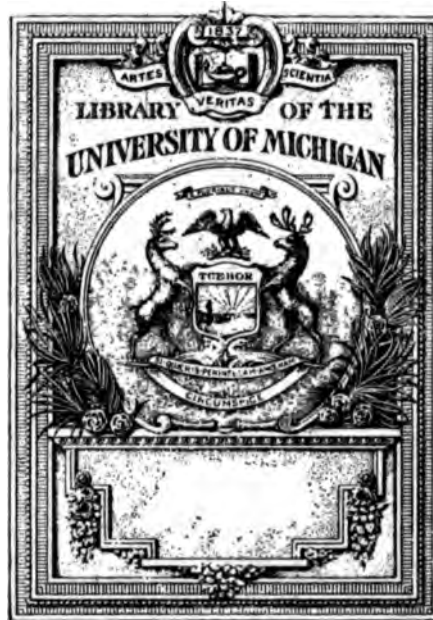
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SEVENTY-SEVENTH
ANNUAL REPORT

OF THE

Superintendent of Schools.



Published by the Authority of the
Board of Education
City of Des Moines
1906



**SEVENTY-SEVENTH
ANNUAL REPORT**

of the

Superintendent of Schools

For the Year Ending June 30, 1920



Published by the Authority of the
Board of Education
City of Detroit
1920



LETTER OF TRANSMITTAL

Sept. 1, 1920.

To the Honorable Board of Education,
City of Detroit.

I am submitting the Seventy-seventh Annual Report of the Detroit Public Schools for the school year ending June 30, 1920. On account of the reorganization activities no separate report was printed for the school year 1918-19.

Very respectfully,

FRANK CODY,
Superintendent of Schools.



A. B. Moehlman,
9th
9-28-1923

Report of the Superintendent

Part 1. Statement of Growth and of Policy

X DETROIT'S phenomenal development and growth from a 1910 population of 465,766 to 993,739 in 1920, an increase of 113%, has been reflected in the school system. This development was so rapid in some sections that it seemed physically impossible to make proper provision for it. In 1910 the Detroit school system was a small organization, built upon the theory of one man control and with little or no room for administrative expansion. It was the obvious evolution of a small unit into a big organization without adequate preparation or without definite policy covering a period of years. Comparatively little attention was paid to the development of the school system upon lines designed for a large city. Administration and research received only the most casual attention. It was, however, a period of development of educational ideals and preparation for modern practices that paved the way for present day teaching methods. During this time the break from the old time formal academic type of training to the modern socialized curriculum was made possible by careful experimentation with the newer practices. //

Registration Grows More Rapidly Than Census

In 1910-11 the registration of pupils was 61,961 and the school census 114,448. In 1920 the registration had become 139,604, an increase of 125%. During this period the public school registration has increased more rapidly in proportion than the school census, due largely to the application of the 16 year old compulsory school law (Table I—Graph I).

Graph I—Growth of Registration and Census

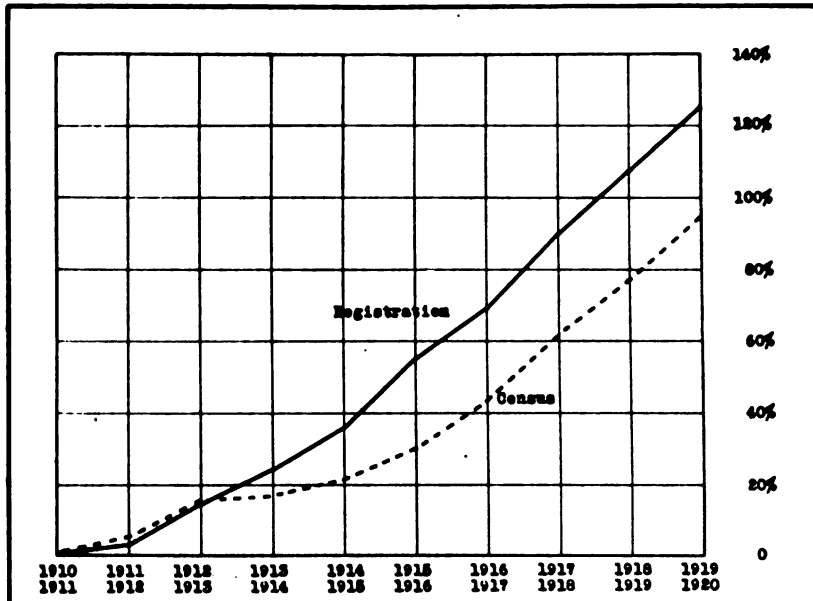


Table I

The following table shows the number of children of school age as reported by the census and the public school registration, together with the yearly increases in each, for the past ten years:

Year Ending June	School Census	Increase	Percent Increase	School Registration	Increase	Percent Increase
1911	114,448	4,458	4.	61,961	5,034	8.8
1912	119,599	5,151	4.5	63,547	1,586	2.5
1913	131,845	12,246	10.2	71,003	7,456	11.7
1914	133,155	1,310	.9	77,024	6,021	8.4
1915	138,805	5,630	4.2	84,280	7,256	9.4
1916	149,346	10,541	7.5	96,067	11,787	13.9
1917	164,532	15,186	10.1	104,737	8,670	9.
1918	185,254	20,722	12.5	117,527	12,790	12.2
1919	203,091	17,837	9.7	128,456	10,929	9.2
1920	222,789	19,698	9.7	139,604	11,148	8.7
Total Increase over 1911						
		108,341	94		77,643	125

in size and value of the school plant is an-
these changes. In 1896 the value of school
\$2,615,557.00. In 1912 it was \$7,080,167.50, and
will be approximately \$40,000,000.00. The in-
1912 will be \$32,919,833.00 or a 457% growth.

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II—Value of Sites and Buildings

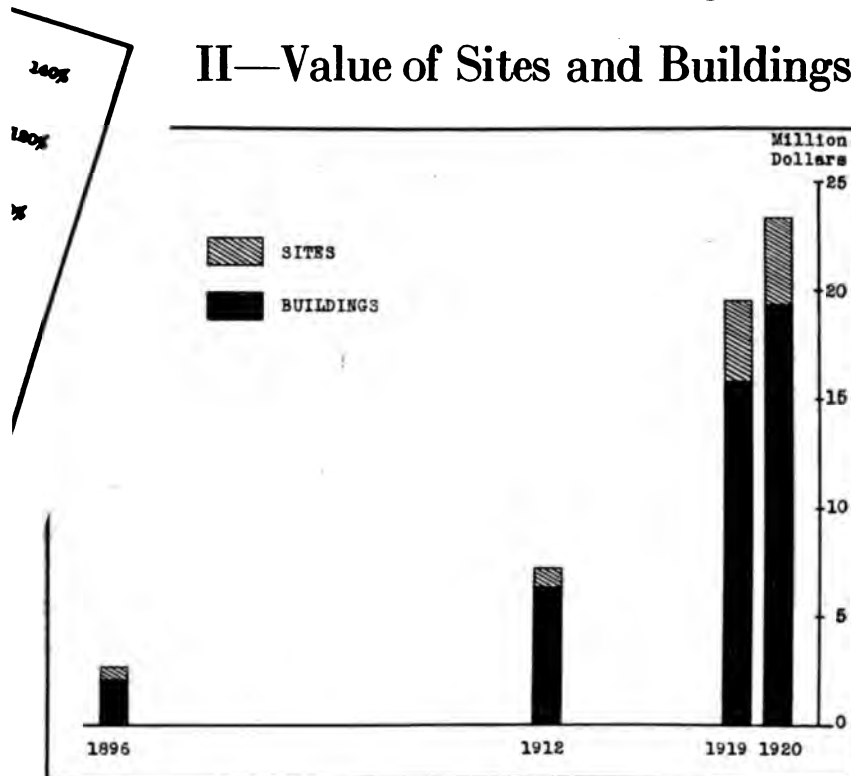


Table II—Value of School Sites and School Buildings 1896-20

Year	Sites	Buildings	Total Value
1896.....	\$ 629,420.00	\$ 1,986,137.00	\$ 2,615,557.00
1912.....	913,082.50	6,167,085.00	7,080,167.50
1919.....	3,602,351.86	15,856,513.41	19,458,865.27
1920.....	4,001,899.01	19,279,097.90	23,280,996.91

In 1896 there were 59 elementary schools and 1 high school. In 1920 this had increased to 137 elementary, 5 intermediate, and 10 high schools, 1 high school annex, 2 college buildings, 1 open air school, 24 rented or temporary buildings, or a total of 180.

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Graph III—Number of School Buildings by Years

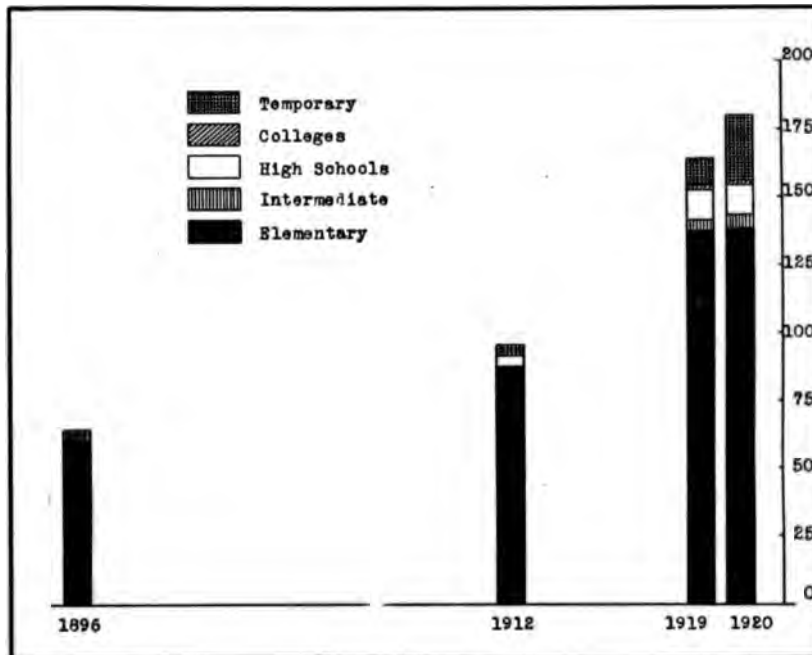


Table III—Number of School Buildings by Years

End of June	No. Elemen- tary	No. Inter- mediate	No. High	No. Col- leges	Rented Build- ings	Portable Buildings	Settlements		Total No. Buildings
							& Neigh- borhood Houses	Open Air	
1896	59a	..	1	..	4	..	..	..	64
1912	87a	..	4	..	4	..	..	..	95
1919	137b	4	11c	2	..	7	3	..	164
1920	137d	5	11c	2	6e	15	3	1	180

a. Includes two buildings also used as high school departments.

b. Includes Norvell, also used as an intermediate school; Monterey and Wabash used until May, 1919, and then sold.

c. Includes Cass Tech, High Annex as a separate building.

d. Includes Keating and Cooper Schools.

e. Includes Parental Home and Edgewood School.

In 1910-1911 there were in the Board's employ 1589 teachers, 125 of whom were men. In 1920 a total of 3770 teachers were employed, 500 of whom were men. While the total increase was 74%, the increase in the number of male teachers was 300%. The proportion of men to women teachers is still small.

Graph IV—Increase in Number of Teachers

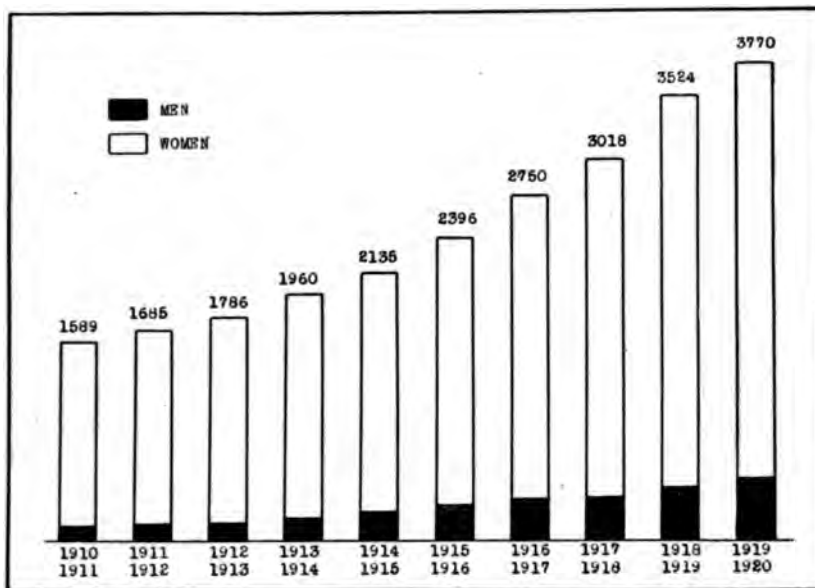


Table IV—Number of Teachers by Years

Date	Men	Women	Total	Increase	Percent of Increase
1910-1911.....	125	1464	1589	...	....
1911-1912.....	136	1549	1685	96	6.1
1912-1913.....	155	1631	1786	101	.6.
1913-1914.....	193	1767	1960	174	9.8
1914-1915.....	239	1896	2135	175	8.9
1915-1916.....	293	2103	2396	261	12.2
1916-1917.....	338	2412	2750	354	14.8
1917-1918.....	347	2671	3018	268	9.8
1918-1919.....	433	3091	3524	506	16.8
1919-1920.....	500	3270	3770	246	6.9

Survey Authorized.

Early in the school year 1919-1920 it became evident that the Board of Education desired the formulation of general policies covering a period of years and the making of necessary organization changes. In July, 1919, the following resolution, introduced by Inspector Frank Alfred, was adopted by the Board of Education:

"Whereas, This Board of Education has been in existence for two years, and further, Whereas, we have elected a new superintendent whose term of office became effective with the beginning of this school year, it would seem desirable at this time to make a complete survey of the entire school system by departments, the report to be made to the Board as each department is completed and a final report after all departments have been reported on, and for this purpose I would move that the President appoint a Committee to formulate the plans and direct the survey."

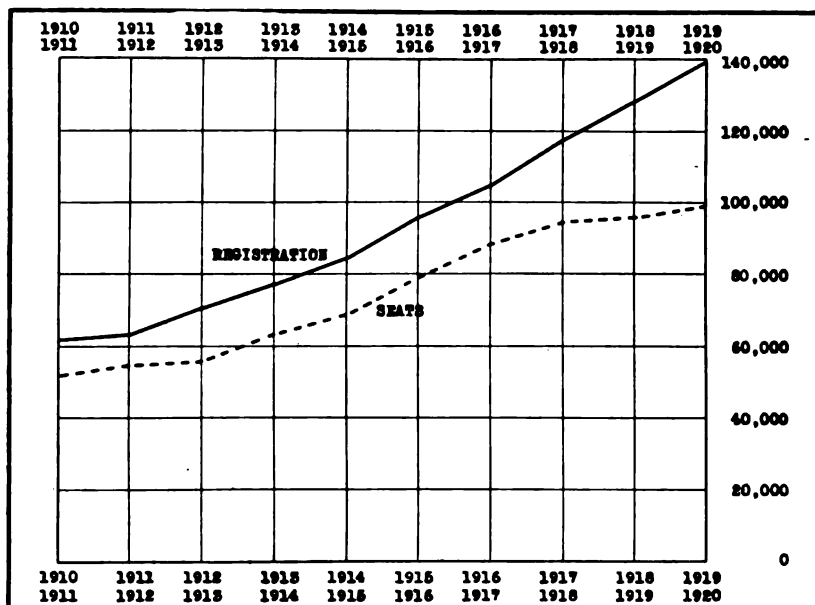
The President appointed a permanent survey committee consisting of Inspectors Frank Alfred, Chairman; S. C. Mumford and J. B. Stringham. This committee immediately formulated general plans for the beginning of departmental survey activity. The actual survey work was assigned to the superintendent and his staff. As quickly as these units were completed they were acted upon and immediate changes effected where necessary.

As a result of these survey activities, the school year 1919-20, both in actual accomplishments and in the importance of these accomplishments in terms of future progress has been a momentous one.

Changes Due to Survey

The most vital and outstanding accomplishment has been the formulation of basic policies and the reorganization of the entire system along the lines of those policies. The extent of this reorganization is best seen by a detailed consideration of each phase of school work. The first survey activity considered was that of building needs.

Graph V—Relation Between Pupils and Seats

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During the year closing June, 1919, 13,000 children had been on half day sessions. When school opened in September, 1919, this number increased to 16,900. This critical situation was due partly to the fact that war prevented building and partly to the absence of a comprehensive building program covering a period of years. **The most urgent need** was the development of a building program, based upon fact, that would cover immediate needs and allow for proper future expansion. Before formulating such a program it was necessary to determine the types of schools that met the educational needs of the city in the immediate future. A study of existing conditions showed the following:

Table V—Types of School Organization 1919-20

Type	No.	Pct.	Type	No.	Pct.
K-8	63	42.0	K-2	2	1.3
K-6	22	14.6	1-6	2	1.3
K-7	21	14.0	9-14	1	0.6
K-4	6	4.0	8-12	1	0.6
1-8	6	4.0	1-7	1	0.6
7-12	5	3.3	1-5	1	0.6
7-9	4	2.6	1-3	1	0.6
K-5	4	2.6	K-3	1	0.6
1-4	4	2.6	K-1	1	0.6
9-12	3	2.0	K	1	0.6

This table shows twenty types of organization, almost one-third of which stopped at or below the sixth grade. Attempts had been made to develop the intermediate grades in four units and the high school organization was of four types, with the six-year organization predominant. The other outstanding feature was the lack of a general specific plan for future development.

Statement of Organization Policy

A careful study of this situation resulted in a statement of policy from the superintendent and his assistants to the Board of Education. This policy, adopted unanimously, declared:

(1) That the educational needs of children of the kindergarten and the first six grades be met by building large elementary schools, with auditoriums and gymnasiums, planned definitely to satisfy the requirements of the "platoon" or "duplicate" form of organization.

(2) That the pupils of the seventh, eighth and ninth grades be provided for in large intermediate schools built to house at least 1200 pupils and equipped to care for the needs of three groups of pupils:

(a) Those who are certain to leave school as soon as the compulsory law will permit.

(b) Those who are certain to continue their studies in the high school.

(c) Those whose future in school is uncertain.

(3) That children of grades ten, eleven and twelve be provided for in metropolitan high schools, equipped to meet the physical, social, intellectual and vocational needs of various types of pupils.

In justification of the above outlined policy, which favors the establishment of intermediate schools in preference to the traditional grammar school, the following data is submitted:

(a) While the eighth grade elementary school has in many respects proved to be an efficient form of organization, it has certain very marked defects. These defects have become more evident in the light of facts revealed by modern educational studies of child life and of the results of teaching.

(b) The high school and the elementary school developed separately in this country, and there has always been a sharp break between them which has led many pupils to leave school at the end of the eighth grade.

(c) Statistical studies show that of the entire number of children who complete the fifth grade about 65% drop out of school before they enter the ninth grade. Of those who do enter the ninth grade, from 35% to 50% drop out during the first year. A recent study has shown that a large percentage of those who drop out do so not because of economic necessity or because of failure in their work, but because pupils and parents feel that the work of the school is not related in any definite way to practical life and hence is not deemed worth while.

4. All research studies during the past ten years indicate that a pupil who has ability to learn will acquire a reasonable degree of control over the tools of education by the end of the sixth school year. Pupils of the eighth grade show very little more power over the mechanics of education than the pupils of the sixth grade. The curriculum of the seventh and eighth grades consists largely of reviews and repetitions of what has been taught in the grades below and many pupils weary of it and leave school as soon as they can do so under the law.

5. In considering the education of the children between the ages of 12 and 16 recognition must be given to the fact that this is the period when vocational interests begin to dawn, when children begin to think about their life work. By the time they reach the age of sixteen, the great mass of them must find their way into industrial life. Many of them are no longer interested in books. They need an opportunity to test themselves in a variety of vocational activities, they need guidance and help in finding their places in life, and in preparing for their life work. This the elementary school cannot successfully provide. Since the compulsory law now requires children to remain in school until they are 16 years of age, it becomes incumbent upon the school to provide a curriculum which effectively meets the needs of pupils of this age.

6. In pupils of adolescent age, differences in individuals are more marked than they have been in the years preceding. It is important that the school recognize these differences and provide a differentiated curriculum with some opportunity for choice of work on the part of the pupil. This the elementary school cannot offer, except to a limited extent and at an excessive cost.

7. The gathering of kindergarten, primary and grammar grade children into one school for purposes of education does not make a homogeneous group. The interests and needs of the adolescents of the grammar grades are so different from the interests of those of the kindergarten and primary grades that the school cannot, to the highest degree, serve the interests of one group without to a certain degree sacrificing the interests of the other.

In training the children for democracy two factors must be recognized:

- (a) the needs of society
- (b) the needs of each individual

(a) During the early years of school life, it is important that all children acquire a common fund of aims, ideas, ideals and habits of thought and action in order that there may be social and national solidarity.

(b) Inasmuch as children differ widely due to heredity, environment and past training, it is important the schools provide a variety of opportunities so that each individual may have a chance to develop his own individual power to the fullest extent possible.

Platoon School Recommended *copy*

To meet the need of society for a common school training for all children, the establishment of six grade elementary schools, built and equipped to satisfy the requirements of the "platoon" or "duplicate" school organization, is recommended. This type of school and organization is recommended for the following reasons:

1. Because it is an expression of the best and most progressive educational thought.
2. Through departmentalization it enables teachers to specialize in the subjects for which they are best fitted and results in more effective teaching.
3. It applies the principles of business efficiency because it makes the largest and most complete use of the school plant all day long.
4. It provides more and better opportunities for the physical development of all pupils.
5. It provides for a half hour daily in the auditorium for every child. Here a positive effort is made to socialize and Americanize him. Here he listens to talks on Americanization, civics, and hygiene; sees moving pictures and stereopticon views; hears good music; sings good songs; participates in debates, and dramatics on the stage; and learns to have poise and self possession in public.
6. Measurement tests in writing, arithmetic, spelling, and geography show that the percentage of growth in the platoon schools has been higher than in the schools under the other form of organization. In addition the pupils of these schools have had many advantages in the auditorium and gymnasium that the other pupils did not have.

7. Our experience in the platoon schools during the past year has shown that the pupils are happy and enthusiastic, discipline is reduced to a minimum, and there is in these schools a fine school spirit.

8. A questionnaire directed to the principals and teachers of the platoon schools shows that without exception every principal and teacher prefers the platoon form of organization to the traditional form.

Establish Intermediate Schools

To provide for the varied individual needs of pupils from 12 to 16 years of age, the expansion of the work of the intermediate schools now established, and the building of new schools of this type to house at least 1200 pupils each, with the ultimate aim in view of providing for all pupils of adolescent age in schools of this type, is recommended.

The advantages of the large intermediate school may be summarized as follows:

1. Pupils from the age of 12 to 16 are passing through the critical period of adolescence, during which the influence of the school may easily "make" or "break" the pupils' future career. It is therefore important that the needs of pupils of this age be recognized and schools adapted to their requirements established.

2. Individual differences in pupils are more marked in adolescence than they have been before and the intermediate school can provide for these differences by a varied curriculum and some freedom for pupils to select types of work which they prefer.

3. In this period vocational interests begin to appear and pupils need opportunities to test their abilities and aptitudes in various kinds of vocational work. The school must also explore for the pupil the various vocations into which he is likely to find his way and give him information as to possibilities for employment, wages, advancement and leisure time. Pupils at this time must also have vocational guidance. All of these things the intermediate school can provide, while the elementary school cannot.

4. The intermediate school following the platoon school provides more extended departmentalization and promotion by subject with their attendant advantages to pupils and teachers.

5. The segregation of large numbers of pupils of the same grade in one school makes possible the organization of classes of like ability and permits the more capable pupils to advance rapidly and to complete their education earlier.

6. It is possible for the intermediate school to provide profitable kinds of work for over-age pupils and thus prolong their period of education.

7. Statistics as far as they are available indicate that the introduction of the intermediate school results in a marked decrease in the number of pupils who leave school in grades seven, eight and nine. Statistics from Rochester, N. Y., show that in 1916, 94½% of the pupils in the eighth grade of the intermediate school remained for the ninth grade, while in the previous year with the grammar school organization only 51% remained.

8. In recommending the establishment of more intermediate schools we are placing ourselves in line with the policy of the leading American cities. Most of the large cities are committed to this form of organization and a definite policy of expansion along this line involving the expenditure of millions of dollars is now under way in St. Louis, Pittsburgh, Buffalo and Rochester, N. Y.

Metropolitan High Schools

To meet the needs of pupils of the tenth, eleventh and twelfth grades, we recommend the building of metropolitan high schools, which shall provide differentiated curricula, including vocational work together with vocational and personal guidance.

We are recommending the above policy of educational expansion with the feeling:

1. That it is a concrete expression of the most modern, progressive educational thought.

2. That the types of schools here recommended have been sufficiently tested in actual practice to demonstrate their real worth.

3. That the establishment of the intermediate school closely articulated with the platoon school on one side and with the high school on the other will:

(a) Bridge the gap heretofore existing between the elementary school and the high school and make education a continuous process.

(b) Provide to a greater degree than we have done in the past for the individual needs of all pupils.

(c) Prolong the period of education for many pupils who under the traditional form of organization would drop out.

1920-21 Building Program

Work on a comprehensive building survey was immediately started under the direction of the Building Committee of the Board of Education by an assistant superintendent. This survey resulted in the following recommendations, which were incorporated in the 1920-21 budget.

"Your Building Committee, in the preparation of the budget for the school year 1920-1921, has given consideration to the ultimate development within the present city limits which will be provided for by the program herewith recommended.

"1. We propose the division of the entire city into 20 districts, the boundaries of which districts will be the main thoroughfares. This will make it unnecessary for children to cross the important thoroughfares and will be in harmony with the safety program of the Board of Education.

"2. Your Committee has sought to carry into effect the policy of the Board to provide equal conveniences as to walking distances and equal educational advantages to all pupils. To this end it has made a careful selection of sites for future school buildings, and proposes as rapidly as possible to erect new buildings on sites already secured, and additions to present buildings in the more rapidly growing and congested districts.

"3. In the preparation of the plan, it has been necessary for your Committee to look into the future; we therefore submit a plan, the working out of which will cover a period of years. It contemplates the abandonment of some of the older buildings eventually, and ultimately using and operating 90 of the present school buildings instead of 140 as at present with better administrative and economical results. Twenty-five new elementary plants will be added. It is suggested to

construct new and modern buildings in the congested districts, but no old building is to be abandoned until it has served its usefulness and until it can be shown that it would be an economy to do so. This will be done in no case until sufficient accommodations are provided in the new structures to take care of every child. The above has particular reference to the older and more densely populated portions of the city. We recommend the securing of new sites and the erection of new buildings to keep pace with the city's growth.

"4. Furthermore, in line with the adopted policy of the Board of Education, the plan contemplates the relief of elementary schools by the construction of intermediate schools to accommodate the 7th, 8th and 9th grades.

"5. We have proposed construction only of such portions of new buildings as will provide for immediate needs, bearing in mind that our standard school plan will permit of economical additions as population becomes denser in various localities.

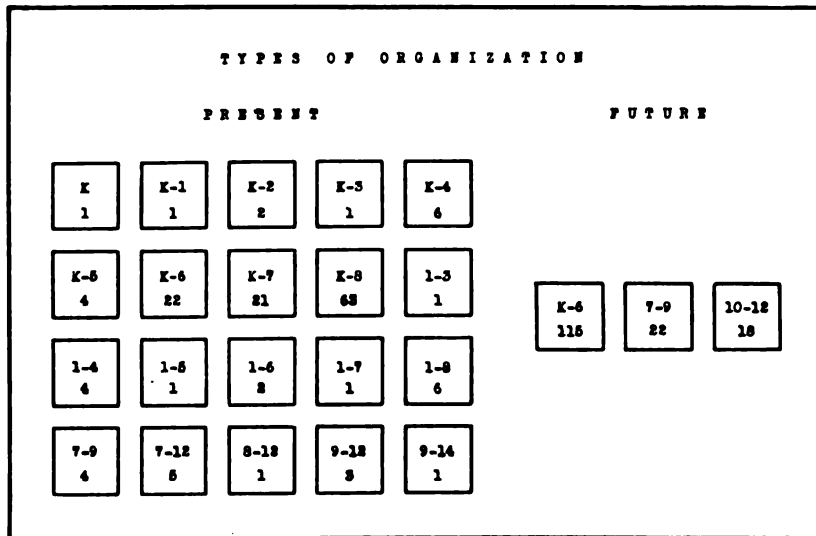
"6. The land and building budget as submitted provides for:

School for Cripples	\$ 200,000.00
Elementary Schools	7,776,684.00
Intermediate Schools	4,876,175.00
High Schools	1,930,000.00
New Sites	1,685,822.00
<hr/>	
Total	\$16,468,681.00

This program will provide 25,120 seats and, when completed, will enable Detroit to provide full day schooling for every child, except in certain isolated instances. The first definite results of this program will be to overcome the handicap Detroit has been laboring under since the beginning of the period of rapid growth. Followed by other programs that take into consideration the actual demands for annual growth, the Detroit building problem may be considered to be now largely a mechanical one.

When the policy adopted is finally worked out through the building program the organization will change from the mixed one shown in Table V to the ~~and consistent~~ consistent one shown on the right side under "1."

Graph VI—Present and Proposed Organization



A detailed statement of the 1920-21 requests follows:

Table VI—Summary of Public School Building and Land Budget for 1920-21

	Elementary	Intermediate	High Schools	Cripples	Total
Additions.....	21	1	..	1	23
Capacity.....	7880	1000	..	..	8880
Est. Cost.....	\$3,905,000	\$ 500,000	..	\$200,000	\$ 4,605,000
New Buildings.....	11	5	2	..	18
Capacity.....	7080	7800	2100	..	16980
Est. Cost.....	\$3,647,465	\$2,900,000	\$1,600,000	..	\$ 8,147,465
Total Building.....	..	..	..	..	..
Capacity.....	14960	8800	2100	..	25860
Est. Cost.....	\$6,552,465	\$4,400,000	\$1,600,000	\$200,000	\$12,752,465
Land Needed 1920					
No. of Parcels.....	18	3	1	..	22
Est. Cost.....	\$1,224,219	\$ 476,175	\$ 330,000	..	\$ 2,030,394
Land Needed Later					
No. of Parcels.....	20	6	..	..	26
Est. Cost.....	\$ 934,282	\$ 751,540	..	..	\$ 1,685,822
	\$8,710,966	\$5,627,715	\$1,930,000	\$200,000	\$16,468,681

Develop Standard Budget *B*

Detroit had long felt that modern standardized budget procedure was essential to a complete reorganization of its financial system. The first step in this direction was the introduction several years ago of a cost accounting system. The operation of this made necessary a reorganization of statistical records upon a uniform basis. The comparative unit selected was the student hour, a chronological sixty minute instruction hour. The necessity of securing a cost report upon a subject basis developed a complicated problem. It was difficult to compare the elementary subjects with those of the intermediate and high schools. A reclassification of the entire course of study was decided upon, partly to meet this problem and partly to fit into the new organization plan. As a result Detroit has developed six departments of instruction that cover the entire course of study from kindergarten through the college units. These comprise:

- (1) Health Education.
- (2) Languages.
- (3) Exact Sciences.
- (4) Social Sciences.
- (5) Vocational Education.
- (6) Fine Arts.

This necessitates only six uniform splits to determine subject costs.

The factors considered in the adoption of this plan were:

- (1) To make the budget conform to the accounting system.
- (2) To follow the general divisions recommended by the United States Bureau of Education and the National Association of School Accounting Officers.
- (3) To build around these principles a procedure that might fit conditions in almost any community.

In general the main divisions as outlined by the National Association of School Accounting Officers have been used. Certain divergence was made necessary by peculiar local conditions.

The Detroit budget has been divided into the following groups:



A—ADMINISTRATIVE (General Control)**1. Educational****Personal Service**

- (a) Executive
- (b) Supervisors
- (c) Attendance
- (d) Clerical

Service Other Than Personal

- (e) Stationery, Postage & Supplies
- (f) Transportation
 - 1. Automobile
 - 2. Street Car
- (g) Publications
- (h) Traveling Expenses

2. Business

- (a) Executive
 - a. Personal Service
 - b. Supplies
- (b) Records, Accounts and Payrolls
 - a. Personal Service
 - b. Supplies
- (c) Purchase, Storage and Distribution of Supplies
 - a. Personal Service
 - b. Supplies
- (d) Census
- (e) Printing Proceedings, Annual Report, Manual and Directory
- (f) Transportation
 - 1. Automobile
 - 2. Street Car
- (g) Traveling Expenses

The Board of Education believes that the primary purpose of the organization is to furnish instruction and that all business activities necessary to make the schools function physically are distinctly subordinate to the educational activities. The order of considering administrative requests has been reversed and prominence given to the educational factors. Three years ago this policy was established by the newly elected board of seven members when the superintendent was made the chief executive officer of the schools with the business manager as a subordinate instead of a co-ordinate official.

Another distinct point of departure from general procedure is charging supervisors against administration or general control rather than considering this an instruction cost. The supervisor's time in Detroit has been devoted to administrative detail as well as to actual supervision and inspection of instruction. Members of this staff do not teach and they are not attached to one school or a division of schools such as elementary, intermediate, etc. The Detroit supervisor functions for the entire system, controlling instruction in grades one through twelve.

While the actual functioning of the attendance department in enforcing compulsory education laws is an educational charge, the direct cost of compiling the census, an act to secure revenue, is distinctly a cost of business administration.

Apart from these noted changes this division includes all regulative and executive service. Under educational administration are included all salaries and supplies of administrative and supervisory officers, clerical hire, supplies, transportation, publications and traveling expenses.

Under business administration are three divisions: (a) Executive, including salaries and office supplies of the business manager, the assistant secretary, the supervisory engineer, the supervisor of properties and their staffs; (b) Records, Accounts and Payrolls, includes all items under these activities; (c) Purchase, Storage and Distribution of Supplies carries with it the proper charges against these activities. The remaining items in this division are the cost of taking the census, the printing of the reports of the Board of Education, transportation, and traveling expenses of officials to conventions or upon trips of inspection.

B—INSTRUCTION

1. Kindergarten Instruction

- a. Personal Service
- b. Educational Supplies
- c. Free Text and Library Books

2. Elementary Instruction

I. Day School

- a. Personal Service
- b. Educational Supplies
- c. Manual Training Supplies

ANNUAL REPORT

- d. Physical Education Supplies
- e. Free Text and Library Books
- f—Repairing and Rebinding Books

II. Summer School

- a. Personal Service
- b. Educational Supplies

III. Evening School

- a. Personal Service
- b. Educational Supplies
- c. Free Text and Library Books

3. Special Instruction**a Instruction of the Blind****I. Elementary**

- a. Personal Service
- b. Educational Supplies

II. Intermediate

- a. Personal Service
- b. Educational Supplies

III. High

- a. Personal Service
- b. Educational Supplies

b Instruction of the Deaf**I. Elementary**

- a. Personal Service
- b. Educational Supplies

II. Intermediate

- a. Personal Service
- b. Educational Supplies

III. High

- a. Personal Service
- b. Educational Supplies

c Instruction for Correction of Defective Speech

- a. Personal Service
- b. Educational Supplies

d Instruction of the Anemic**I. Elementary**

- a. Personal Service
- b. Educational Supplies

II. Intermediate

- a. Personal Service
- b. Educational Supplies

III. High

- a. Personal Service
- b. Educational Supplies

e Instruction of the Crippled

- I. Elementary
 - a. Personal Service
 - b. Educational Supplies

- II. Intermediate
 - a. Personal Service
 - b. Educational Supplies

- III. High
 - a. Personal Service
 - b. Educational Supplies

f Instruction of Defective Children

(Special Classes Type A—6 to 13½ Years)

- a. Personal Service
- b. Educational Supplies

g Instruction of Defective Children

(Special Classes Type B)

- a. Personal Service
- b. Educational Supplies

h Instruction of Incurrigible Children

- I. Elementary
 - a. Personal Service
 - b. Educational Supplies

- II. Intermediate
 - a. Personal Service
 - b. Educational Supplies

- III. High
 - a. Personal Service
 - b. Educational Supplies

4. Intermediate Instruction**I. Day School**

- a. Personal Service
- b. Educational Supplies
- c. Manual Training Supplies
- d. Physical Education Supplies
- e. Free Text and Library Books

II. Summer School

- a. Personal Service
- b. Educational Supplies

III. Evening School

- a. Personal Service
 - b. Educational Supplies
 - c. Free Text and Library Books
-

5. High School Instruction**I. Day School**

- a. Personal Service
- b. Educational Supplies
- c. Manual Training Supplies
- d. Physical Education Supplies
- e. Text and Library Books

II. Summer School

- a. Personal Service
- b. Educational Supplies

III. Evening School

- a. Personal Service
- b. Educational Supplies
- c. Free Text and Library Books

6. Technical Instruction**I. Day School**

- a. Personal Service
- b. Educational Supplies
- c. Technical Supplies
- d. Library Books

II. Summer School

- a. Personal Service
- b. Educational Supplies
- c. Technical Supplies

III. Evening School

- a. Personal Service
- b. Educational Supplies
- c. Technical Supplies
- d. Free Text and Library Books

7. Continuation Instruction

- a. Personal Service
- b. Educational Supplies
- c. Manual Training Supplies

8. Normal Instruction**I. Day School**

- a. Personal Service
- b. Educational Supplies
- c. Library Books

II. Summer School

- a. Personal Service
- b. Educational Supplies

III. Evening School

- a. Personal Service
- b. Educational Supplies

9. Collegiate Instruction**a Detroit Junior College****I. Day School**

- a. Personal Service
- b. Educational Supplies
- c. Library Books

II. Summer School

- a. Personal Service
- b. Educational Supplies

III. Evening School

- a. Personal Service
- b. Educational Supplies

b Detroit College of Medicine and Surgery

- a. Personal Service
- b. Educational Supplies
- c. Library Books

General supervision has been excluded from the instruction division and within this large unit the arrangement of items differs greatly from the procedure in some cities. The primary split within this division is by instructional groups.

1. Kindergarten.
2. Elementary (grades 1 to 6).
3. Special.
4. Intermediate (grades 7 to 9).
5. High (grades 10 to 12).
6. Technical (grades 9 to 12).
7. Continuation.
8. Normal School (teacher training).
9. Collegiate.

Under each of these activities a secondary split brings the requests for (a) day, (b) summer, and (c) evening instruction into one group. Personal service in each group is sub-divided in detail into principals' and teachers' salaries, giving each individual's salary.

C—AUXILIARY AGENCIES AND SUNDRY ACTIVITIES**1. Playgrounds**

- a. Personal Service
 - b. Supplies
- 

2. Social Centers

- a. Personal Service
- b. Supplies

3. Parental School

- a. Personal Service
- b. Supplies

4. Baths**I. Elementary**

- a. Personal Service
- b. Supplies
- c. Fuel

II. Intermediate

- a. Personal Service
- b. Supplies
- c. Fuel

III. High

- a. Personal Service
- b. Supplies
- c. Fuel

5. Lunches

- a. Anemic Children
- b. Crippled Children
- c. Defective Children
- d. Parental School

**6. Transportation of Indigent and Crippled Children
(by activity)**

This includes special activities not classified as instruction. The items that would naturally fall under this heading would be the operation of:

- 1. Playgrounds.
- 2. Social Centers.
- 3. Parental School.
- 4. Baths.
- 5. Lunches.
- 6. Transportation of Indigent Pupils.
- 7. Books and Supplies for Indigent Pupils.

The children at the Parental School receive their instruction in regular schools. They are given board and lodging at the home.

The chief difference from occasional practice in this district is the absence of the school library as a charge. Detroit considers the school library as a direct instruction charge

building its new curriculum in all divisions with a sense of the importance of this activity.

Health service is absent because this function is performed by the Board of Health and is charged directly to that department.

D—EXPENSES OF FIXED CHARGES

- 1. Rent**
- 2. Insurance on Materials and Stores, Automobile, and Liability**
- 3. Personal Injury Claims**
 - a. First Aid
 - b. Employers' Liability
- 4. Contingencies**

E—PAYMENT OF LOANS (Debt Service)

The Detroit school district is dependent financially upon the Common Council, the legislative body of the City of Detroit, for appropriations. Bonds and their redemption are not carried as a charge against the school district but against the city. The only items falling under this classification are short time loans that the Board of Education is authorized to incur. The heading was therefore changed to conform with the local situation and called "Payment of Loans."

This classification follows general practice.

- 1. Redemption of Short Time Loans**
- 2. Interest on Short Time Loans**

F—OPERATION OF SCHOOL PLANT

1. Personal Service (Janitors & Engineers)

- a. Day Schools
- b. Evening Schools
- c. Extra Rooms
- d. Crossing Men
- e. New Buildings

2. Personal Service (Matrons & Domestics)

- a. Elementary
- b. Special Rooms
- c. Intermediate Schools
- d. High Schools

This division follows general procedure and includes all charges against operation of buildings and grounds or, collectively, the school plant. The items are divided into personal service, supplies, fuel, lighting, and telephone service. The salaries of the supervising engineer and his staff are administrative charges and are treated as such in division A-2.

G—MAINTENANCE OF SCHOOL PLANT

1. Upkeep of Grounds (repairs)

- a. Labor Cost
- b. Materials

2. Repair of Buildings

- a. Labor Cost
- b. Materials

3. Replacement of Educational Furniture

4. Replacement of Other Equipment

This division follows general practice and includes all direct charges to the maintenance of the school plant.

H—CAPITAL OUTLAY

1. Purchase of Land

(Items arranged alphabetically)

2. Improvements to Sites for Athletic Purposes

(Items arranged alphabetically)

3. New Buildings

(Items arranged alphabetically)

- a. Buildings
- b. Architectural & Engineering Fees or Costs
- c. Landscaping
- d. Playgrounds

4. Alterations to Buildings (not repairs)

(Items arranged alphabetically)

5. Equipment and Furniture for New Buildings

(Items arranged alphabetically)

6. Equipment and Furniture for Old Buildings

(Items arranged alphabetically)

Capital outlay has been definitely defined and the differences that appear in the above are in the arrangement of the sub-activities to meet local conditions.

I—CREDITS

- a From the Federal Government.
- b From the State.
- c From other sources.

The Board of Education receives monies from certain sources which it applies to its budget as a credit. After the amounts requested have been allowed by the appropriating body these credits are deducted from the maintenance fund and the net result is the amount to be raised by taxation.

Method of Presentation

In the second part of this discussion will be considered the method of making up and presenting this budget.

On or about September 1 of each year the various departments begin compiling their departmental estimates.

These are sent to the Director of the Budget about the middle of October.

These requests are then analyzed in conference with departmental heads, suggestions given, and certain changes made.

The requests are then compiled in temporary form and placed before the superintendent and his assistants for their consideration.

The result of these conferences is placed into form to be later discussed and presented by the superintendent to the Survey Committee of the Board of Education not later than the second week in December. Upon analysis and revision by this committee the budget is presented to the Board of Education for approval on or before the first day of January.

After approval it is sent to the City Controller on or before January 17 to be incorporated as a part of the other city budget requests.

The actual form in which the budget is prepared for consideration may be discussed in detail. In considering the proposed expenditures the Board of Education first desires a general comparison between the proposed and the preceding budgets. It also desires to know immediately whether the requested appropriations make sense. This is given in the General Statement.

General Statement

Division	Allowed 1920-21	Percent of the Total Mainten- ance Fund	Asked 1921-22	Percent of the Total Mainten- ance Fund	Increase	Percent Increase
A. Administration.....						
B. Instruction.....						
C. Auxiliary Agencies and Sundry Activi- ties.....						
D. Fixed Charges.....						
E. Payment of Loan.....						
F. Operation of School Plant.....						
G. Maintenance of School Plant.....						
Total Maintenance Fund.....		100%		100%		
H. Capital Outlay.....						
GRAND TOTAL.....						
I. Credits.....						

After a preliminary survey of these comparative tables, the general argument follows. This is a comprehensive statement of activities undertaken in the present budget and a statement of activities contemplated under the proposed budget. This argument may cover half a dozen pages, but deals only in the terms of the general divisions as outlined above.

General Argument

1. A statement of activities under the present budget.
2. A statement of activities contemplated under the proposed budget with arguments therefor.

This is followed by a detailed analysis of each activity carried in the budget. If elementary instruction (B-2) (Day Schools) is to be analyzed, then the comparison is made of the sub-activities under a, b, c, d, e, and f. These are analyzed and compared with like sub-activities for the current year and are preceded by a narrative that includes the number of pupils served, the character of the service, and the cost. The current and the proposed costs are compared and argument given for the increase.

Analysis by Activities

[illegible]

The detailed personal service report of this activity may be found on page —

The detailed supply service report of this activity may be found on page —

These sub-activities are further analyzed in personal service and supply divisions. In the personal service division the schedule of that particular activity is first given and then the number of positions at each salary are itemized.

Detailed Analysis of Personal Service by Activities

B Division.

2 Activity.

(Schedule of each activity)

Personal Service detailed.

The supply requests are then analyzed in detail in accordance with the following table.

Detailed Analysis of Supplies by Activities

A

712

CAPITAL OUTLAY

Capital outlay will be presented first under the six divisions considered earlier in the discussion of the budget divisions. The detailed analysis of these, together with arguments therefor, will be carried in a manner similar to that pursued in the consideration of the maintenance fund.

Budget Aims Achieved

The question arises how this manner of preparing and presenting a budget will insure the basic purposes of a budget

1. To secure adequate funds
2. To prevent possible waste
3. To eliminate all unnecessary expenditures.

The superintendent and his staff first of all determine the educational policy for the succeeding year, planning carefully any new departures. With this as a basis the needs of the various activities are determined, paying careful attention to (1) past experience, (2) using the results of cost accounting and (3) making use of carefully prepared distribution tables. Any unusual increases in different items are carefully analyzed and explained.

Possible waste is prevented by having the director of educational expenditures review all detailed estimates for supplies and equipment from the standpoint of determined policy. In this review he uses the material prepared from past expenditures. Upon the basis of his studies these estimates are revised to consistency with the general policy. He follows through after the appropriations have been secured and passes upon the expenditures.

Unnecessary expenditures are provided against in two ways, first, by having estimates classified as follows:

- (1) Absolutely essential
- (2) Necessary
- (3) Desirable.

As previously stated, the second check is through the director of educational expenditures.

All of these estimates when finally brought together must form a balanced whole, and if they fail to do so, the unusual items are again carefully analyzed with the aim of determining

whether this deflection from normal is defensible and productive of greater results.

Conclusions

The adoption of this standardized form of budget will result in :

1. A sensible arrangement of its appropriation requests.
2. A form in which these requests may be easily read, and with sufficient information to make them easily understood.
3. It will show the increases in requests, together with the percentage increases, which by checking with the growth of the system will determine the justice of the requests.
4. It is a procedure that follows national practice in its general outlines and will permit the making of comparisons with budget requests in other cities of similar size and conditions.
5. It is a step in the direction of a unified standardized national system of school expenditures.
6. It will insure adequate funds and will prevent waste and unnecessary expenditures.

ADMINISTRATION

In addition to the foregoing, the following changes have been made in administration :

The administrative and supervisory duties have been planned in accordance with the best modern business practices. The immediate developments have been :

1. Formation of an administrative staff holding weekly meetings to discuss, plan, and make effective, matters of general policy.
2. The position of principals and their relations to superintendents and supervisors have been more clearly defined. The supervisory function of the principal has been more highly developed than ever before and his routine duties simplified.

accurate system of child accounting. This was worked out by co-operation with the county organization. Two clearing houses will be established, one in the county and one in the city. Pupils transferring from one public school to another or from private or parochial school to public school will clear through the Department of Attendance. A child transferring from city to county schools or vice versa will clear through the Detroit Attendance Department to the County Attendance Department.

12. A technical connecting link between the Board of Education and its architects has been created by the establishment of the Department of Architectural Engineering.

13. In the building of schools, work towards standardization of regular and special class rooms and equipment is in progress.

14. The reorganization has also affected the work of the clerical assistants in the superintendent's office. A more adequate force has been provided, the work has been properly classified, and high salaried officials released from statistical and routine detail for more important work.

15. Producing a general consciousness of current educational needs and problems through printed regular monthly bulletins and principals' notes.

16. Completion of a general survey of teachers' salaries and the development of a new schedule. The results of this survey and the new schedule have been published as Research Bulletin No. 1, Detroit Educational Bulletin.

KINDERGARTEN

The Kindergarten is the vestibule of the school system. Here the child receives his first experiences as a member of a social group, and is introduced to life and activities outside the range of his experiences in the home. Much of modern progress in education has come from the ideas in teaching methods first developed in this field. The educational influences, which are slowly but surely changing the character of class room instruc-

tion from the purely formal and academic toward vital present day life activities, are spreading from the kindergarten upward through the grades. For some time Detroit has recognized the value of this tendency by entrusting the instruction of the kindergarten and the first and second grades to one department. 8

1. The present policy is the extension of the supervision of this department to grades three and four. This insures a gradual transition from the freedom and simplicity of normal childish activities to the set forms and regulations of conventional school life, and marks a big step toward a better adjustment of grading which will eventually eliminate the heavy retardation too often found in the elementary school.

2. The second advantage of the new unity of control is the modification of the activities of the kindergarten which is taking place. Without sacrificing at all the elements of freedom and self expression which have made kindergarten work of value, the actual work done is being made to contribute more and more to the work of the early grades.

3. With the adoption of the new salary schedule the technical administration of the kindergartens has been changed with a resulting economy in both salaries and building space. The traditional one-half day session teacher has been eliminated. Kindergarten teachers will now teach a morning and afternoon session of two and one-half hours each. The use of these rooms will be doubled. This change will result in a permanent saving of at least \$50,000 annually in salaries over the old method. /

ELEMENTARY GRADES

Education in the elementary grades (ages 6 to 12) is concerned primarily with the acquisition of skill in the use of those tools by which all mental work is done—reading, writing and arithmetic. The work in these grades represents the conventional common school education to the great mass of the people, the foundation upon which the structure and security of the republic rest. Detroit is more conservative than other 3

cities in changing from the customs of the past. The changes in our social life, however, have made changes in the curriculum of the school imperative. The city boy and girl need a type of training which will develop initiative, knowledge of world problems and peoples, wide sympathies and an adequate understanding of our modern complex civilization. This means, not that the three R's must be sacrificed, but that the children must learn their reading, writing and arithmetic under conditions which will make them familiar with present day situations. A great movement is on in America to tie education more closely to the social and economic life of the times.

1. In Detroit this movement is represented by the platoon school, with its enriched curriculum, its enlarged facilities and special methods. Last year there were six such schools in operation. This year there were fifteen. The work of these schools, however, is being carefully checked by constant measurement of the products to make sure that the advantages of the old education are not lost in securing the new. A descriptive Bulletin on this type of school has been issued as Research Bulletin No. 2.

2. The extension of the system of scientific testing of pupils has resulted in information in regard to conditions, educational changes, laws of learning, and growth.

3. The administration is doing more effective planning, and is executing plans more effectively.

4. More effective co-operation between principals and supervisors has resulted in greater power to deal with the difficulties that arise and has provided suggestions for progress. The principal has developed educational leadership through this co-operation that appeared impossible before. Supervisors work through the principal and concentrate upon such problems and such members of the staff as the principal requests.

SPECIAL EDUCATION

Of all the advances made in recent years none has been more significant than the development of special classes for

children who depart so widely from normal that their presence in regular class rooms is an injury to their progress and a hindrance to the progress of others. But like all other rapid growths, this development has been uneven and the work loosely organized.

1. A careful survey of existing conditions and classes has been made. As rapidly as possible supervision and control is being consolidated under a single departmental head.

2. The psychological clinic, as the agency which examines, classifies and assigns children to the type of work best suited to their needs, is expanding rapidly. In the near future the school system will be able by means of mental tests to place correctly and at once without loss of time and effort every new child that comes into the system. It is very probable that similar measurements of intelligence will soon become general in the industrial world as an aid to the classification of employees.

3. For the schools the clinic is preparing to play a similar part in the selection of clerks, janitors, teachers and special assistants. Preliminary experiments are already under way and plans made for future development.

INTERMEDIATE GRADES

(7-8-9)

B

The adoption by the Board of Education of a policy of establishing intermediate schools is one more step forward in the progress Detroit is making. The old classical high school was distinctly a college preparatory institution, and as such was necessarily kept for the few who were destined to go to institutions of higher learning.

1. The intermediate school, however, represents a continuation of the policy expressed in the platoon school of the elementary grades, and is built around and for all the children of all the people. In range it comprises grades 7, 8 and 9, and forms a connecting link between elementary education and the modern cosmopolitan high school. Nationally it represents a curriculum unit which is designed to minister directly to the needs of the child and to give them oppor-

tunities to explore the whole range of human activities and to select intelligently and within broad limits the field of their life work. It then prepares them either directly for that work or for such further training as they are able to take.

A number of junior high and other types of special transition schools were in operation, as an experimental first attack upon the problem.

2. The situation was canvassed both here and in other cities, and a definite and comprehensive policy formulated to govern present and future planning.

3. The city has been surveyed and the location of the present and future number of the intermediate schools determined as far as possible.

4. The type of buildings necessary to carry out this educational policy has been determined and five of the new type will be erected during 1920-21.

HIGH SCHOOLS

B A change in the administration of high schools was made early last year in line with the new policy of the Board of Education.

1. They have been placed under the administrative control of the deputy superintendent.

2. The six year high school has been definitely abandoned as expensive and inefficient.

3. The first steps have been taken to develop a metropolitan high school system comprising grades ten, eleven and twelve.

4. An extensive survey has been ordered by the Board of Education in an attempt to analyze minutely the local situation.

5. Upon the basis of special surveys certain buildings have been changed to conform to present needs.

6. Work has been started upon a new course of study, revised to recognize social needs and present problems.

7. The internal activities of the high school including lunchroom, bookstores, publications, athletics, etc., have been placed upon a business basis through the installation of a uniform accounting system inspected regularly by the Board of Education auditor.

8. A beginning has been made to have every member of the high schools engage in some physical activities.

9. Closer relations have been established between the high schools and the public library.

TECHNICAL EDUCATION

The development of technical education is coincident with the development of Cass technical high school. B

1. Work on the new Cass technical high school units is constantly going on. New units and laboratories are being opened as soon as completed.

2. Nine new laboratories and 26 new shops were opened this year.

3. The Vocational school, Jones and Second Avenue, was opened in January, offering preparatory vocational training to boys who expect to enter the industries and who are not contemplating a regular high school education.

4. This unit cared for 1627 in the day classes and 2800 in the evening during 1919-20.

NORMAL TRAINING

It is important, not only that the city schools be well planned, but that they be taught by persons prepared to make the most of the greater facilities provided by the new types of schools. This need was met by the City Normal Training School. In the past the purpose of this school has been rowly conceived as the training of high school graduates teachers in the kindergarten and elementary grades.

1. Teachers in service need training no less than beginners, and through evening classes for teachers, summer session connections with state normal schools and with the university, the work of the normal school has been broadened and widened until a Teachers College was established by the Board of Education this spring.

2. The Teachers College will be the instructional hub of the city's educational system and from it will radiate, like spokes in a wheel, instructional and research activities that will embrace all divisions. The curriculum has already been revised, based upon a four years' course in accordance with the new educational policies of the Board of Education.

3. The registration during 1919-20 was:

Regular sessions.....	400
Summer session (1919).....	400
Evening session.....	1190

Total1990

EVENING SCHOOLS

B

The effectiveness of this work may be judged by the demand for it. The evening schools are more in demand each year. The present growth:

1. In Americanization instruction was given to 920 foreigners unable to speak English.

2. Eight hundred and forty-five registered to make up the deficiencies in their elementary education to enable them to enter high school.

3. There were 173 foreigners taking special work in government and civics to prepare them for citizenship.

4. The mothers' classes, afternoon instruction for foreign women, numbered 431.

5. The evening continuation or high schools have registered 15,539 persons this year.

6. For those unable to go to school classes have been held in factories at the request of the employers.

EDUCATIONAL RESEARCH

The regular work of the department has been of two distinct types. One, the routine work of the department, has dealt wholly with the measurement of class room products. Tests in Arithmetic, Spelling, Writing and Geography are given by class room teachers at the beginning and end of the semester, and the results sent to the central office for tabulation. The amount of this routine testing is shown in Table VII.

Table VII—Number of Children Tested

Type of Tests	To Whom Given	1st Semester		2nd Semester		Total
		Begin-ning	End	Begin-ning	End	
Arithmetic.....	Grades 4B-8A	35,245	34,289	36,714	35,686	141,934
Spelling.....	Grades 2B-8A	54,183	53,413	56,607	55,639	219,842
Writing.....	Grades 3B-8A	44,858	43,450	45,946	45,260	179,514
Geography						
States.....	Grades 5B-6A	16,677	16,586	17,372	17,277	67,912
Cities.....	Grades 5A-6A	12,618	12,517	13,144	13,039	51,318
Oceans.....	Grades 4A-7A	*38,373	26,790	28,261	27,907	121,331
Countries.....	Grades 6B-7A	13,622	13,496	14,190	14,058	55,366
TOTAL.....		215,576	200,541	212,234	208,866	837,217

*Special groups tested for standardization purposes.

The purpose of the testing work is to improve the efficiency of instruction, and it operates to bring this about in two ways. The tests at the beginning of the semester show the teacher where each child stands with reference to the standard for his grade. They help her to plan her work intelligently. The tests at the end of the semester enable a teacher to compare the progress made by her class with the average progress made by other teachers of the same grade, and so to judge of the value of the methods she has used. Further, principals and supervisors study these same results to see how the work is going in a given school or in the city at large. Similarly administrative officers secure from the department reports of the effect of changes in policy and methods. For instance, during the year the city-wide results have been used to determine the relative efficiency of the new and old methods of teaching hand-writing, and to evaluate the effect upon instruction of the plan.

of district principals that was tried on the East side of the city, reports of both of which will be found elsewhere.

In addition to the routine testing, a large number of experiments have been tried, many of which will result ultimately in the adoption of other standard tests for regular use in the city. For instance, the department assisted the supervisor of English to compare various tests of composition ability, and the supervisor of primary grades to compare a number of tests in reading. Experiments have also been tried with intelligence tests, with tests in arithmetic, appreciation, music, and tests in a number of other subjects.

Rating Scale for Teachers

Another achievement of the year has been the completion of an improved scale for rating teachers. Experimental investigations in this field have been under way for some years. The results were embodied in a new form of rating scale which was put in operation in May. The scheme was well received by principals, and the tabulations of the returns prove that the ratings made are more reliable and satisfactory than those of any previous year.

The second type of work carried on by the department has been the direction and coordination of supervision. The various supervisors of special subjects have met as a supervisory council on Tuesday morning of each week and discussed their common problems. For the second semester the topics considered were as follows:

SUBJECT	No. of Times Discussed
Course of study	16
Method of dealing with mistakes on part of children....	5
Methods of measurement of supervision.....	3
Time schedules	3
Efficiency ratings	2
Plans for normal school.....	6
Plans for institute.....	3
Special programs and exhibits.....	6
Budgets	2
Detroit Teachers Association.....	2
Miscellaneous: records, organization, reports, etc.....	10

The supervisors have kept a detailed record of the work to which their daily time is given. From these records the following summary has been made:

Summary of Work of Supervisors

Total reports received30,480
 Average length of day per supervisor.....6.7 hours
 Visits to schools..... 6,135
 Number of teachers seen at schools.....17,555
 Number of conferences with teachers at office... 4,548
 Number of meetings 434
 Number of teachers attending meetings.....10,974
 Distribution of supervisors' time

Administration

- A. Conferences with teachers and principals at school 7%
- B. Conferences with teachers and principals 3%
- C. Routine, travel, telephoning, clerical work, etc.....25%
- D. Conferences with staff or other administrative
 officers 5%
- E. Preparation for meetings, writing courses of study,
 etc.20%
- F. Meetings10%
- G. Inspection of teachers for purpose of rating.....10%
- H. Instruction or assistance to teachers or principals...10%
- I. Special lectures, exhibits, preparation, giving and
 scoring tests10%

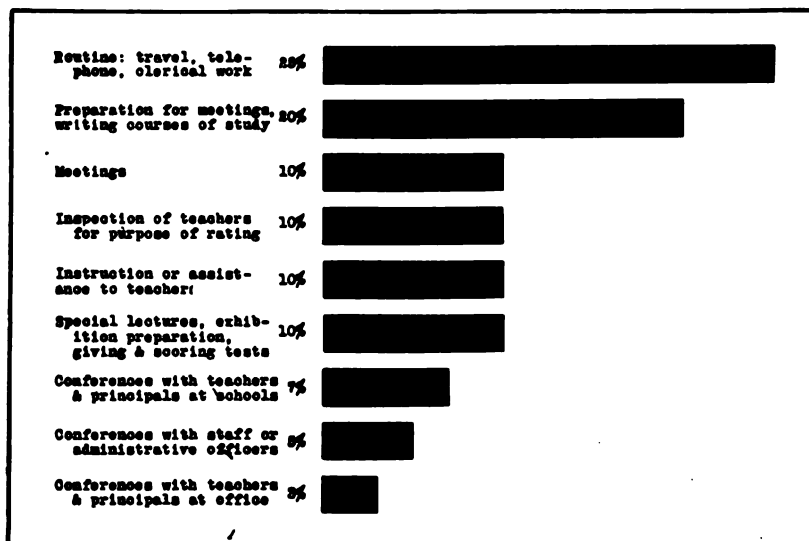
The attention of supervisors has been directed to the solution of four major problems:

1. Measuring the effects of supervision.
2. Developing better methods of supervision.
3. Improving courses of study by socialization of school work.
4. Improving methods of teaching.

Much progress has been made with all four problems and the plans for next year show that the meetings of the supervisory council have been a great stimulation and aid to effective co-operation between departments as well as to growth within each department.

Graph VIII—Classification of Supervisors' Time

copy without graph



In connection with the movement to increase the use in the city of some of the modern methods of teaching, the Director of Educational Research has spoken at nineteen meetings in various schools and educational clubs of the city and its suburbs and reached directly approximately 3,000 teachers.

SECONDARY SCHOOL RESEARCH

The Department of Secondary School Research has been concerned mainly with investigations of different administrative features of the high schools. Among the studies which have been made are the following:

1. Certain administrative features of Cass technical high school.
2. Use of high school buildings.
3. Cost of instruction during the second semester.
4. Size of classes.
5. Distribution of teaching time.
6. Student hours per teacher.
7. Teachers' subject combinations.

The above investigations should give data for much constructive effort. For example, high school buildings are not so constructed that efficient use is possible; many of the schools have an excess of space devoted to study halls, while classrooms are overcrowded.

In addition to the work outlined above, the department has cooperated in the preparation of the building program, the determining of space requirements for intermediate schools, and numerous projects of general administration.

A foundation has been laid for the extension of the work of this department into the field of instructional research. Several new tests have been developed by teachers in co-operation with the department. These will be ready for use during the coming year.

Part II. Statistical Studies

Statistical Studies

The Detroit policy of accurate child accounting was put into practice in September, 1919. The definition of the basic terms and a description of the form is essential to an intelligent understanding of the results of these studies.

Column 1—Registration

Shall designate the first enrollment of a child in the school system during the current semester and shall be recorded at the first session the child is in school.

A pupil entering from an out of the city school shall be considered as a new registration.

Registration is an increasing number. It never diminishes.

Column 2—Received by Transfer

Pupils may be received by transfer (a) from other Detroit public schools; (b) from other rooms within the same building; (c) from Detroit parochial and private schools. Transfers **must not be added** to registration.

Column 3—Lefts

Pupils are marked "left" when transferred to (a) another room within the same building; (b) to other buildings; (c) to Detroit parochial schools; (d) to other cities in Michigan; (e) to other states and countries; (f) to reform schools; (g) to institutions for defectives; (h) when employment permits are granted; (i) upon legal marriage; (j) leaving school over the legal age limit; (k) upon certified notice of death; (l) other cases not covered by foregoing.

Pupils marked "left" upon individual teacher's rolls when transferred to another room are then entered by the receiving teacher in column 2B.

Column 4—Membership

Membership in a school shall continue from date of entrance until the close of the semester except in cases noted under column 3. Membership is determined by adding column 1 to column 2 and then subtracting column 3.

Column 5—Sum of Daily Membership

This is the sum of column 5 of the statistical summary book.

Column 6—Sum of Daily Attendance

This is the sum of column 6 of the statistical summary book in the elementary schools.

Column 7—Average Membership for Semester

This column is secured by dividing column 5 by the actual number of days the school was in session. Carry to tenths.

Column 8—Average Attendance for Semester

This column is secured by dividing column 6 by the actual number of days the school was in session. Carry to tenths.

Column 9—Percent of Attendance for Semester

This column is secured by dividing column 6 by column 5. Carry the percent to tenths.

**Column 11—Entries Second Semester not in School
First**

The books are closed at the end of each semester. They are re-opened the second semester just as they are in September and carried on until the close of school in June. Pupils who were not in school the first semester must be placed in column 11, in addition to column 1.

Column 12—Student Hours

Student hours are cumulative. Please use only whole numbers in this column.

Place in this column only the actual sixty-minute instruction hours.

Do not include hours of department heads, grade or house principals who do not teach classes.

Do not duplicate instruction hours. Students in one class should not be counted twice.

Actual Number of Days School was in Session

Place here only the actual number of days the school was in session. Give explanation of any closing on reverse side of form. Use only whole days. When school is dismissed for a fractional day, the attendance may be the same for both sessions. In tabulating student hours for such occasions use only the actual amount of time devoted to instruction.

Special Cases

If a child moves to another city and is marked left, not returns later in the semester, that child should be entered by transfer in Column 2.

Special Cases

For class and statistical report purposes special classes fall into the following classifications:

1. Blind
2. Crippled
3. Deaf
4. Anemic
5. Special Correction—To be included in school reports, but not added to totals
6. Special A—Delinquent children between the ages of 6 and 18½ years
7. Special B—Prevocational or Special Ungraded
8. Special Preparatory
 - a. Retarded
 - b. Advanced

DETROIT STATISTICAL REPORT

A careful study of these definitions shows that the old manner of computing "temporary leavis," upon the basis of three days' absence, to secure a high percentage attendance has been eliminated entirely. The schools are responsible for every child who registers unless his case is provided for under column 8. As a result, very high attendance percentages are no longer possible, but the figures tabulated represent the actual conditions. The 1919-20 reports are not yet perfect. It requires at least one year to make a report thoroughly workable.

DETROIT STATISTICAL REPORT

SCHOOL	PRINCIPAL		SCHOOL MONTH		ACTUAL OF		TOTAL NO.		CORRECT		RECEIVED		RECEIVED FOR		RECEIVED		FILED		REMARKS
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
ACCOMMODATION	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
FROM OTHER	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
FROM OTHER	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74
FROM OTHER	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93
FROM OTHER	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112
FROM OTHER	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131
FROM OTHER	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150
FROM OTHER	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169
FROM OTHER	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188
FROM OTHER	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
FROM OTHER	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226
FROM OTHER	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245
FROM OTHER	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264
FROM OTHER	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283
FROM OTHER	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302
FROM OTHER	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321
FROM OTHER	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340
FROM OTHER	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359
FROM OTHER	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378
FROM OTHER	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397
FROM OTHER	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416
FROM OTHER	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435
FROM OTHER	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454
FROM OTHER	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473
FROM OTHER	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492
FROM OTHER	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511
FROM OTHER	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530
FROM OTHER	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549
FROM OTHER	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568
FROM OTHER	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587
FROM OTHER	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606
FROM OTHER	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625
FROM OTHER	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644
FROM OTHER	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663
FROM OTHER	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682
FROM OTHER	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701
FROM OTHER	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720
FROM OTHER	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739
FROM OTHER	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758
FROM OTHER	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777
FROM OTHER	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796
FROM OTHER	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815
FROM OTHER	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834
FROM OTHER	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853
FROM OTHER	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872
FROM OTHER	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891
FROM OTHER	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910
FROM OTHER	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929
FROM OTHER	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948
FROM OTHER	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967
FROM OTHER	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986
FROM OTHER	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005
FROM OTHER	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024
FROM OTHER	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043
FROM OTHER	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062
FROM OTHER	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081
FROM OTHER	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100
FROM OTHER	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119
FROM OTHER	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138
FROM OTHER	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157
FROM OTHER	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176
FROM OTHER	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195
FROM OTHER	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214
FROM OTHER	1215	1216	1217	1218	1219	1220	1221	12											

Graph IX—Kindergarten Membership and Attendance

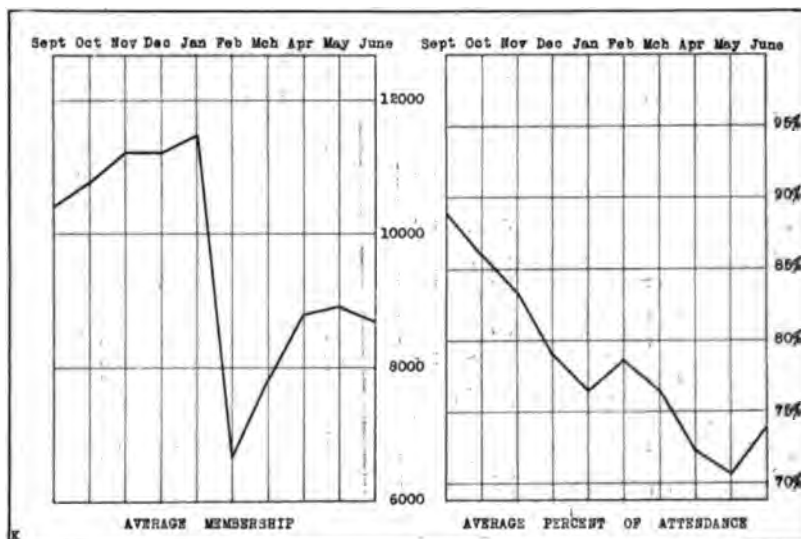


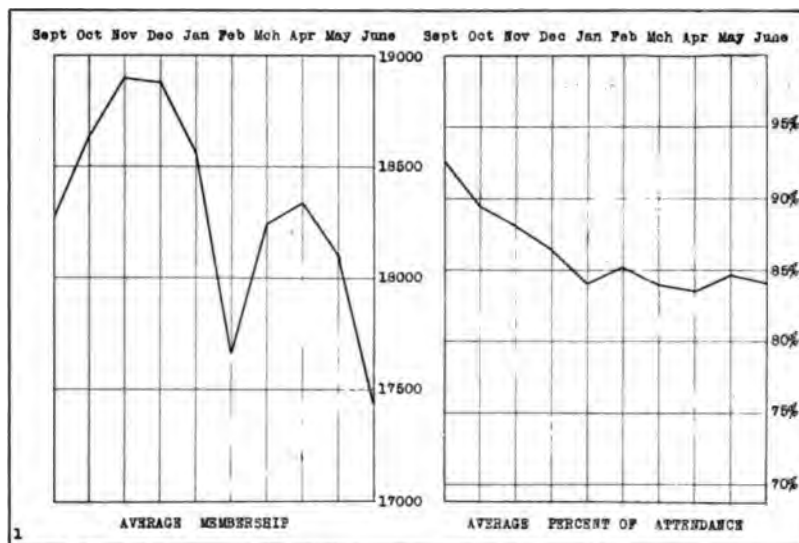
Table VIII—Membership by Months by Grades 1919-20

Month	Membership	Percent Attending
September.....	10,370	88.9
October.....	10,750	85.8
November.....	11,197	83.7
December.....	11,185	79.1
January.....	11,478	76.7
February.....	6,662	78.5
March.....	7,722	76.5
April.....	8,725	72.3
May.....	8,891	70.7
June.....	8,630	73.9

The membership peak was reached in January and the falling off was abrupt at the beginning of the second semester. Cold weather and the epidemic were contributing factors. The membership in June differed from September by 1740.

The attendance shows a constantly decreasing curve through January, a range of 88.9% to 76.7%. The reorganization in the second semester brought a slight rise, but the general tendency was downward. The lowest attendance was reached in May, at 70.7%.

Graph X—Membership and Attendance—First Grade



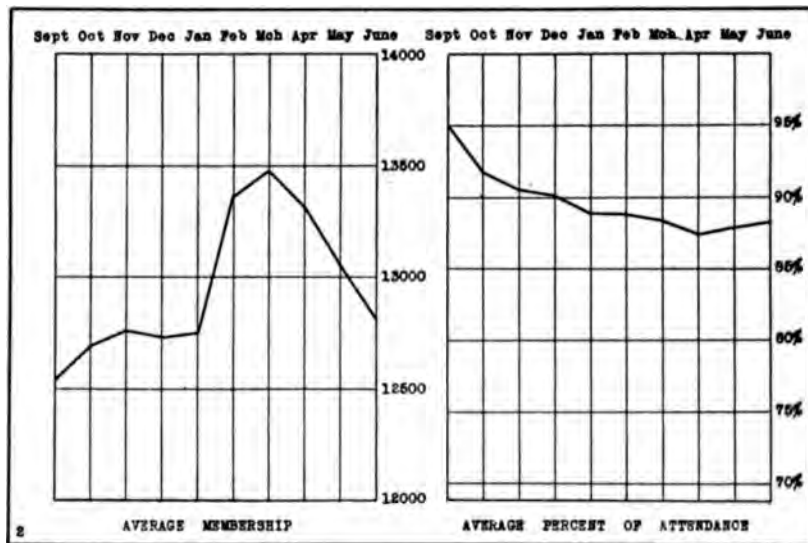
**Table IX—Membership and Attendance
First Grade**

Month	Membership	Percent Attending
September.....	18,270	92.7
October.....	18,636	89.5
November.....	18,905	88.1
December.....	18,888	86.4
January.....	18,555	84.1
February.....	17,663	85.2
March.....	18,242	84.1
April.....	18,334	83.6
May.....	18,101	84.7
June.....	17,446	84.1

The first grade membership shows the same falling off in the middle of the year, but the tendency to drop developed a month earlier than in the kindergarten but did not fall as low. The difference at the close was 824 less than the September membership.

The range of the attendance curve was from 92.7% to 84.1%, the highest in September and the lowest in January and

Graph XI—Membership and Attendance—Second Grade



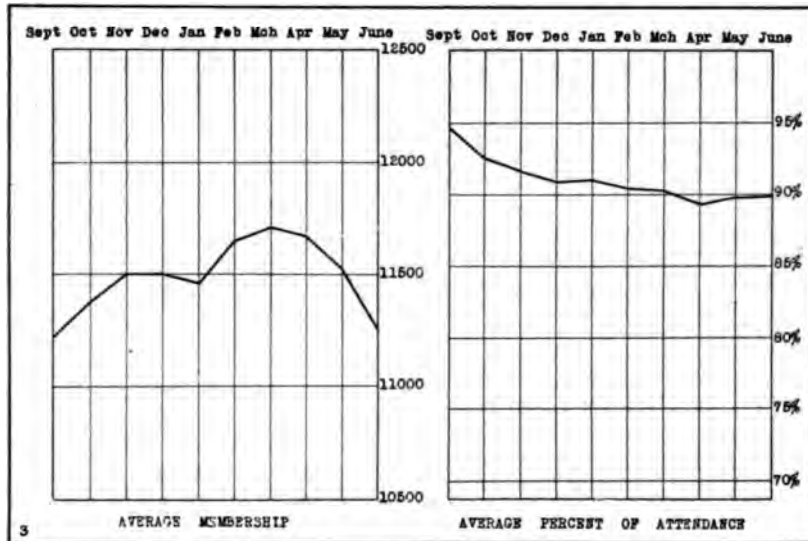
**Table X—Membership and Attendance
Second Grade**

Month	Membership	Percent Attending
September.....	12,545	95.
October.....	12,692	91.8
November.....	12,760	90.5
December.....	12,728	90.1
January.....	12,751	88.2
February.....	13,364	88.9
March.....	13,489	88.4
April.....	13,317	87.7
May.....	13,054	87.9
June.....	12,814	88.3

The second grade reaches a membership peak in March and completes the year with 269 more in membership than in September.

The attendance curve is steadier and shows less variation than the previous grade and kindergarten. The variation is from 95% to 87.7%, a difference of 7.3%.

Graph XII—Membership and Attendance—Third Grade



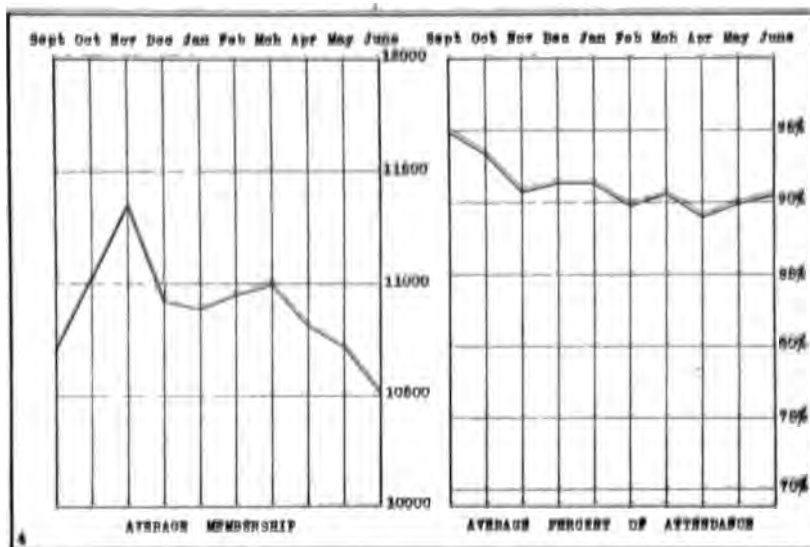
**Table XI—Membership and Attendance
Third Grade**

Month	Membership	Percent Attending
September.....	11,220	94.6
October.....	11,376	92.5
November.....	11,502	91.6
December.....	11,497	90.9
January.....	11,456	91.
February.....	11,648	90.4
March.....	11,709	90.2
April.....	11,689	89.2
May.....	11,519	89.7
June.....	11,249	89.9

The third grade membership curve varied by 49 from September to June, with the peak load in March.

The attendance curve varies from 94.6 in September to 89.2 in April, a difference of 5.4%.

Graph XIII—Membership and Attendance—Fourth Grade



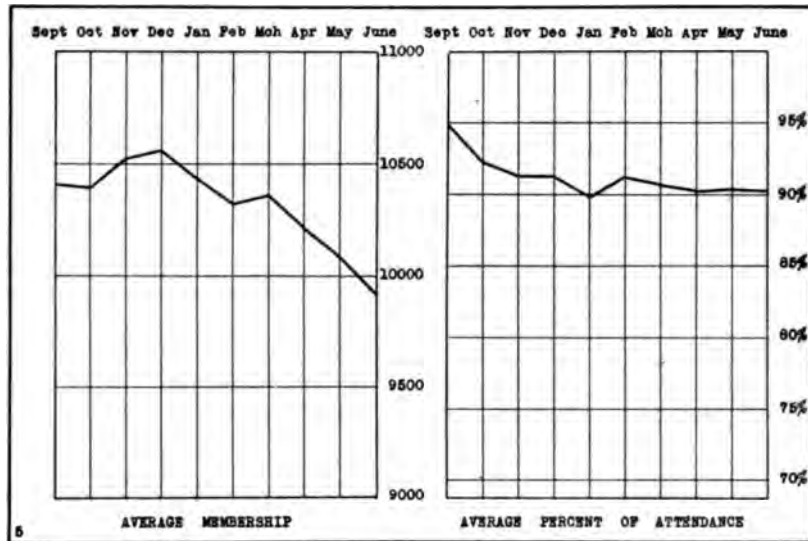
**Table XII—Membership and Attendance
Fourth Grade**

Month	Membership	Percent Attending
September	10,707	94.9
October	11,015	93.4
November	11,338	90.8
December	10,918	91.4
January	10,880	91.4
February	10,949	89.6
March	10,990	90.0
April	10,810	89.0
May	10,714	89.9
June	10,504	90.5

The fourth grade membership curve shows a peak load in November and a general downward tendency after that, the September report having 303 more than June.

The attendance curve has a variation of 5.9% between the high and low mark, with April as the lowest month.

Graph XIV—Membership and Attendance—Fifth Grade



**Table XIII—Membership and Attendance
Fifth Grade**

Month	Membership	Percent Attending
September.....	10,407	94.8
October.....	10,391	92.3
November.....	10,521	91.3
December.....	10,558	91.3
January.....	10,436	89.9
February.....	10,316	91.3
March.....	10,360	90.6
April.....	10,210	90.2
May.....	10,080	90.3
June.....	9,912	90.2

The fifth grade membership peak is in December. June showed 495 fewer than September.

The attendance variation is 4.9%, with January as the poorest month.

Graph XV—Membership and Attendance—Sixth Grade



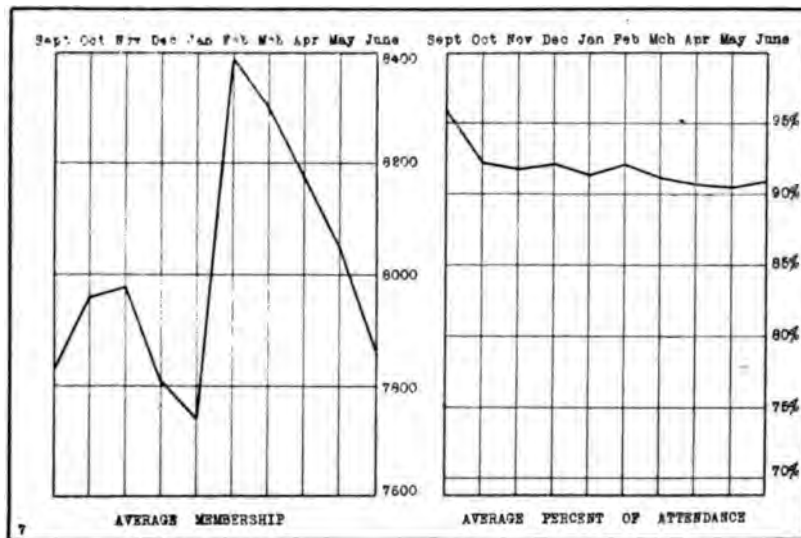
**Table XIV—Membership and Attendance
Sixth Grade**

Month	Membership	Percent Attending
September.....	8,830	95.
October.....	8,929	93.2
November.....	8,898	91.6
December.....	8,833	91.6
January.....	8,823	90.9
February.....	9,279	91.8
March.....	9,222	91.2
April.....	9,233	91.
May.....	9,077	91.2
June.....	8,909	90.2

The sixth grade membership curve changes entirely in character from the fourth and fifth. The peak load is February and the June load is 79 greater than September.

The variation in attendance is smaller, with January and June as low months.

Graph XVI—Membership and Attendance—Seventh Grade



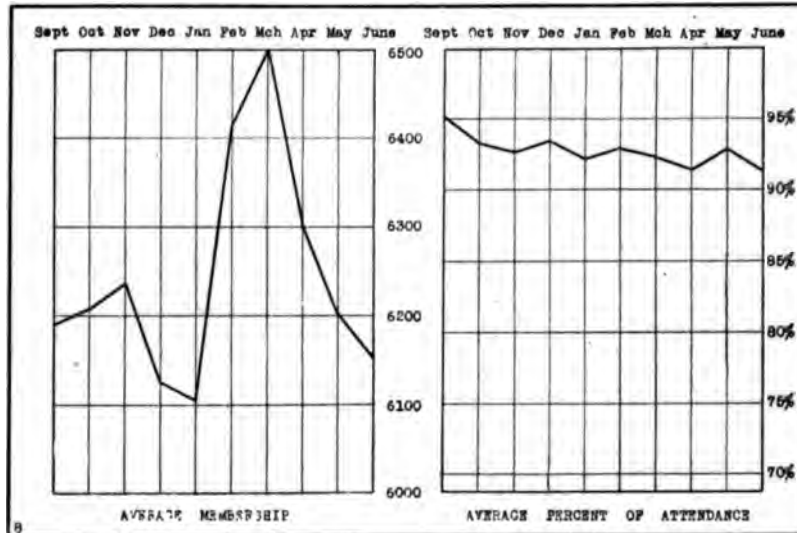
**Table XV—Membership and Attendance
Seventh Grade**

Month	Membership	Percent Attending
September.....	7,828	95.7
October.....	7,958	92.2
November.....	7,978	91.8
December.....	7,808	92.1
January.....	7,741	91.4
February.....	8,387	92.2
March.....	8,300	91.2
April.....	8,175	90.6
May.....	8,048	90.5
June.....	7,863	90.9

The general tendency of the seventh grade membership curve follows that of the previous grade, with the peak load in February.

The attendance variation is 5.2%.

Graph XVII—Membership and Attendance—Eighth Grade



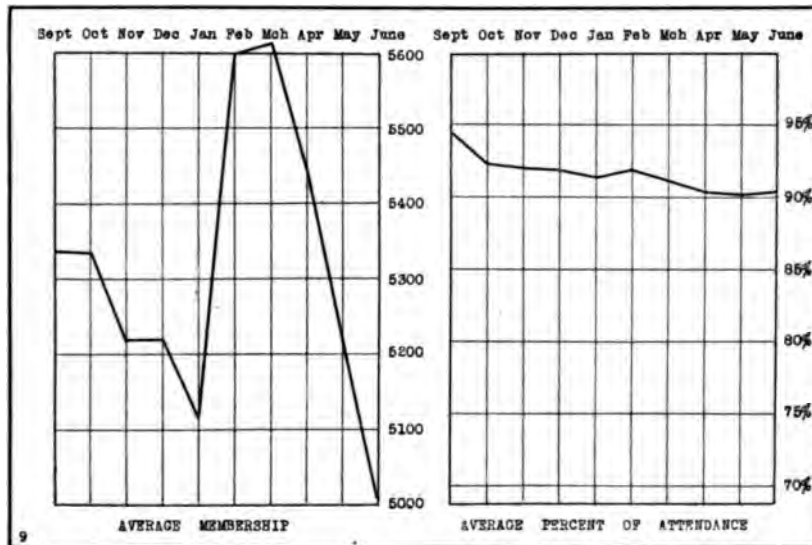
**Table XVI—Membership and Attendance
Eighth Grade**

Month	Membership	Percent Attending
September.....	6,192	95.1
October.....	6,208	93.2
November.....	6,234	92.6
December.....	6,125	93.4
January.....	6,104	92.1
February.....	6,414	92.9
March.....	6,499	92.3
April.....	6,308	91.4
May.....	6,203	92.7
June.....	6,153	91.3

The eighth grade peak load is reached in March. The difference at the end of the year in favor of September is 39.

The attendance variation is 3.8%. April and June are the poorest months.

Graph XVIII—Membership and Attendance—Ninth Grade



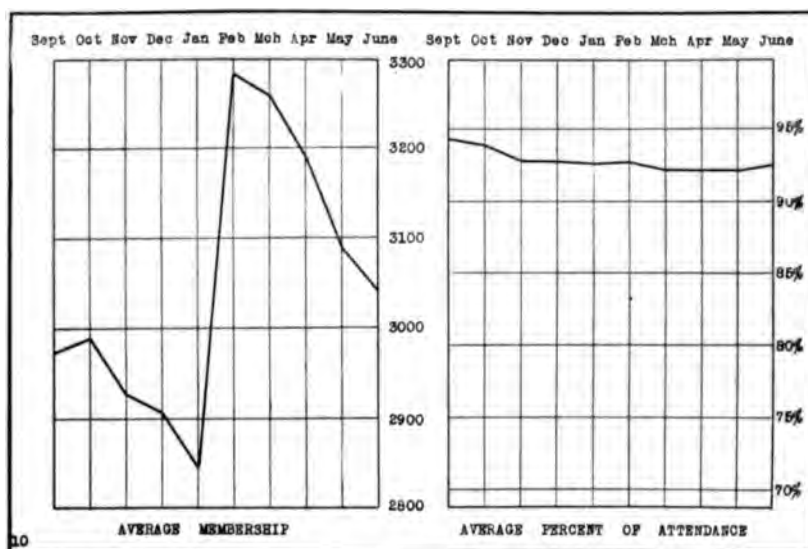
**Table XVII—Membership and Attendance
Ninth Grade**

Month	Membership	Percent Attending
September.....	5,353	94.4
October.....	5,367	92.3
November.....	5,212	92.
December.....	5,215	91.9
January.....	5,151	91.4
February.....	5,600	91.9
March.....	5,609	91.1
April.....	5,425	90.4
May.....	5,226	90.3
June.....	5,074	90.4

The ninth grade peak is also reached in March and the June membership is 274 less than September.

The attendance curve varies 2.1%. April, May and June are the poorest months.

Graph XIX—Membership and Attendance—Tenth Grade



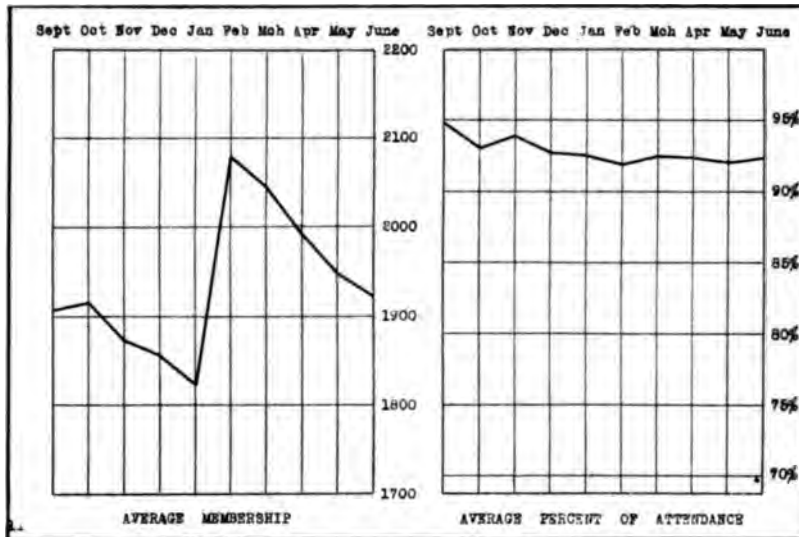
**Table XVIII—Membership and Attendance
Tenth Grade**

Month	Membership	Percent Attending
September.....	2,973	94.3
October.....	2,987	93.9
November.....	2,927	92.8
December.....	2,906	92.7
January.....	2,845	92.5
February.....	3,284	92.7
March.....	3,258	92.1
April.....	3,192	92.1
May.....	3,088	92.1
June.....	3,040	92.4

The tenth grade peak is February, with a gain of 67 in June over September.

The attendance curve varies 1.8%. October is the best month, March, April and May the poorest.

Graph XX—Membership and Attendance—Eleventh Grade



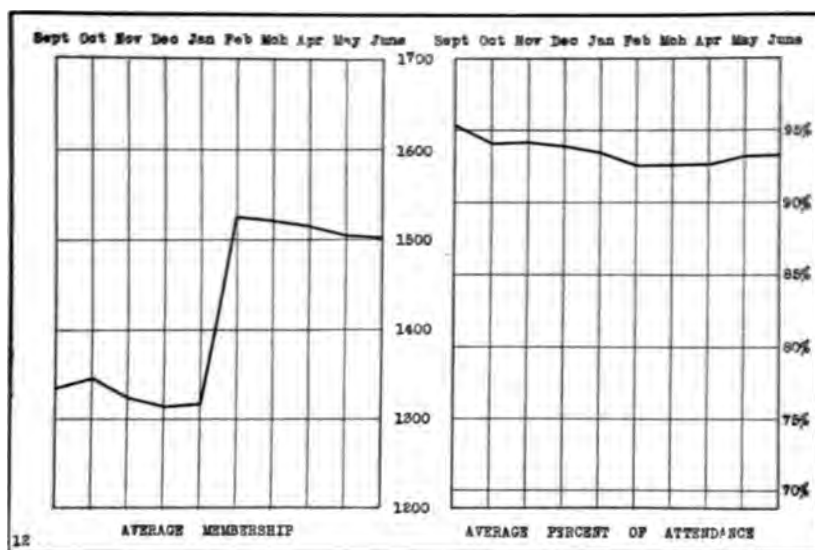
**Table XIX—Membership and Attendance
Eleventh Grade**

Month	Membership	Percent Attending
September.....	1,907	94.7
October.....	1,915	93.
November.....	1,872	93.9
December.....	1,856	92.8
January.....	1,822	92.5
February.....	2,079	91.9
March.....	2,045	92.5
April.....	1,994	92.3
May.....	1,948	92.1
June.....	1,922	92.3

February is the peak month in the eleventh grade.

The attendance variation is 2.8%, with February as the worst month.

Graph XXI—Membership and Attendance—Twelfth Grade



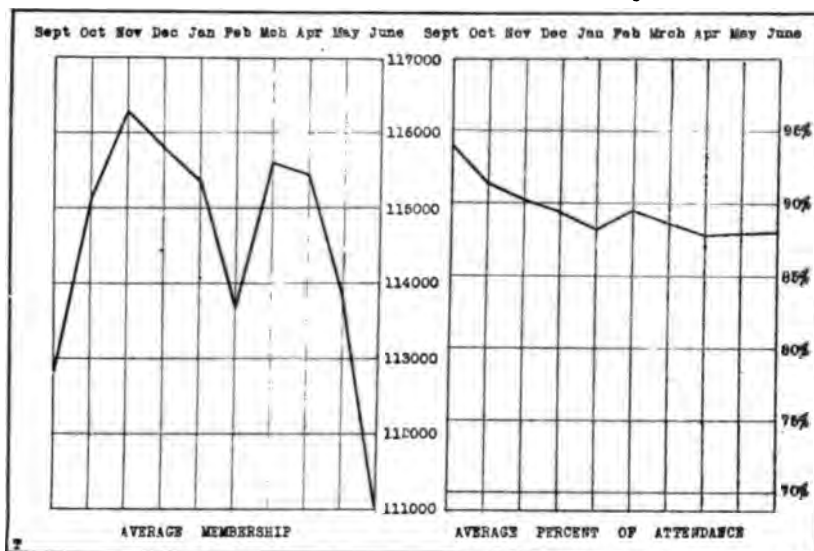
**Table XX—Membership and Attendance
Twelfth Grade**

Month	Membership	Percent Attending
September.....	1,335	95.3
October.....	1,346	94.1
November.....	1,323	94.2
December.....	1,314	93.9
January.....	1,317	93.4
February.....	1,526	92.5
March.....	1,521	92.5
April.....	1,515	92.6
May.....	1,503	93.1
June.....	1,501	93.2

The twelfth grade peak is February and the grade of 166 between September and June is quite noticeable.

The attendance variation is 2.8%. February and March are the worst months.

Graph XXII—Average Membership and Attendance—Entire System



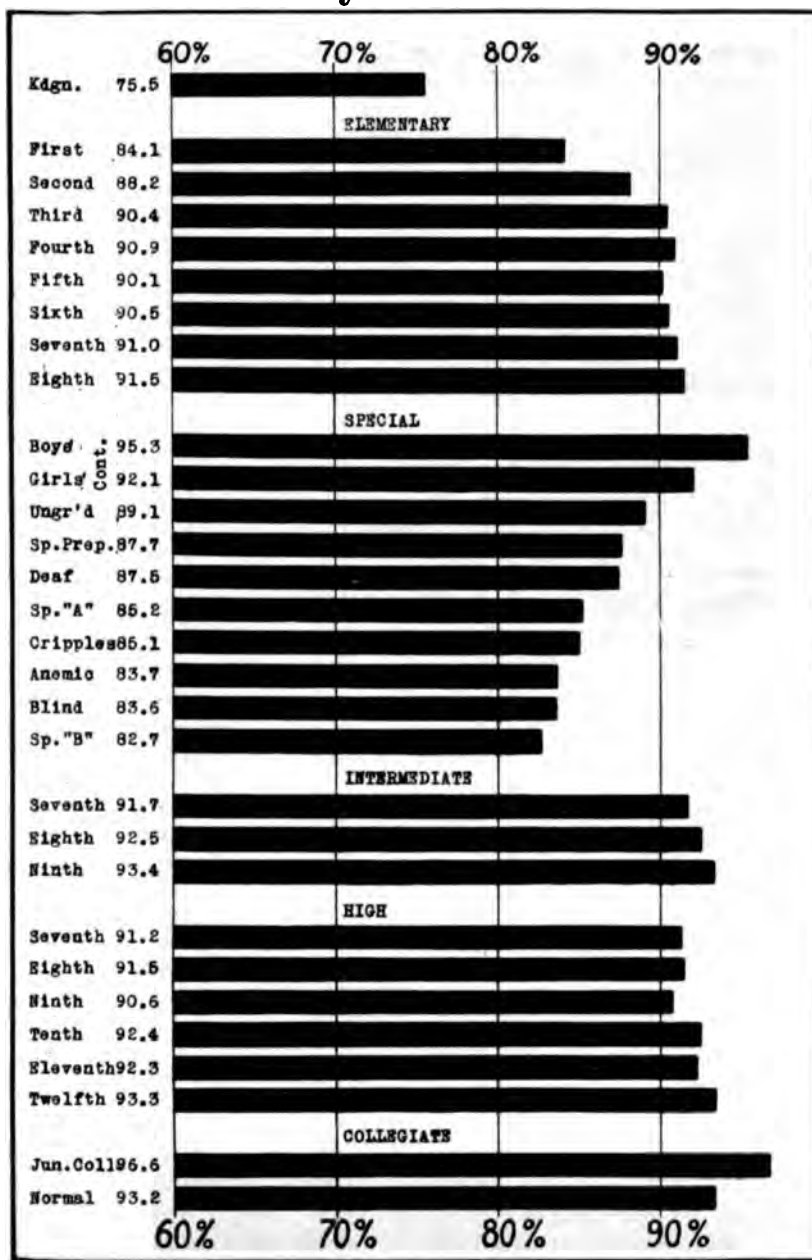
**Table XXI—Average Membership and Attendance
Entire System**

Month	Membership	Percent Attending
September.....	112,806	94.
October.....	115,117	91.4
November.....	116,284	90.2
December.....	115,790	89.4
January.....	115,367	88.2
February.....	113,699	89.4
March.....	115,591	88.7
April.....	115,444	87.7
May.....	113,844	87.9
June.....	111,019	88.

The averages for the entire system place the peak load in November, although the upper grade curves showed this later in the year. The June membership is 1787 lower than the September membership.

The average attendance curve shows a variation of 6%. The range is from 94% to 88%. April and May are the poorest months for the system.

Graph XXIII—Percent of Attendance by Grades



The comparative statement of attendance by grades is significant. The seventh, eighth and ninth grades in intermediate buildings show a better attendance than the seventh and eighth grades in elementary schools and the seventh, eighth and ninth in high school buildings.

The continuation classes have a very high attendance curve, due largely to the nature of the work and close co-operation between factory and school.

The following tables give membership and attendance data for various special departments.

Table XXII—College Units

DETROIT NORMAL			JUNIOR COLLEGE	
Month	Member- ship	Percent Attending	Member- ship	Percent Attending
September.....	316	98.7	476	97.3
October.....	330	98.8	494	93.2
November.....	330	97.6	469	93.9
December.....	343	97.2	447	94.9
January.....	326	96.3	437	95.2
February.....	329	97.2	552	97.2
March.....	330	96.9	536	97.7
April.....	313	96.9	506	97.3
May.....	302	89.1	488	97.7
June.....	299	90.2	480	97.7

Table XXIII—Special Units

A—Continuation

Month	Membership		Percent Attending	
	Boys	Girls	Boys	Girls
September.....	463	468	95.1	95.7
October.....	537	556	94.7	93.4
November.....	589	600	95.1	93.1
December.....	605	615	95.3	93.1
January.....	618	618	94.5	92.5
February.....	621	635	98.3	93.9
March.....	694	635	97.6	92.9
April.....	663	567	97.6	95.
May.....	654	542	95.9	92.1
June.....	509	482	95.8	91.6

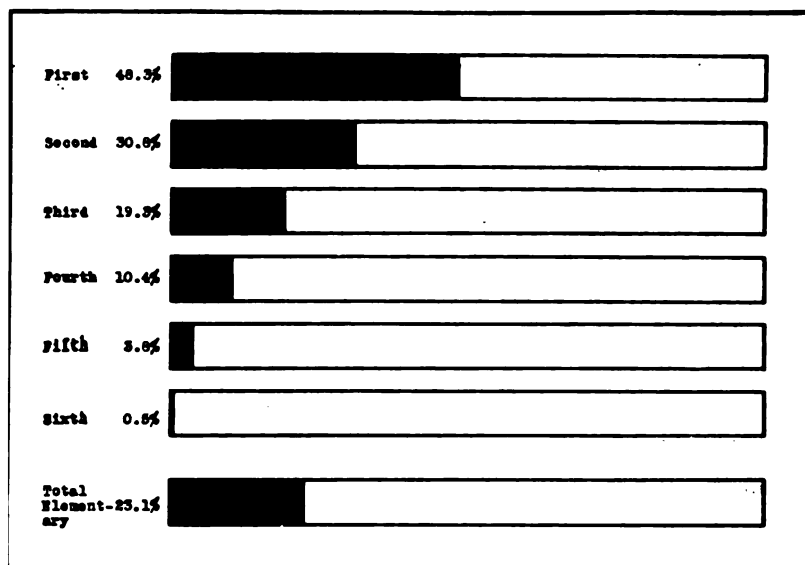
B—Post Graduates and Special Pupils in High and Intermediate Schools

Month	Membership	Percent Attending
September.....	73	94.1
October.....	64	97.1
November.....	61	89.2
December.....	61	91.7
January.....	54	91.7
February.....	96	89.1
March.....	93	91.6
April.....	91	98.4
May.....	88	91.8
June.....	70	91.5

C—Special and Ungraded Pupils in Elementary Grades

Month	Membership	Percent Attending
September.....	2,888	92.1
October.....	3,379	89.4
November.....	3,369	87.9
December.....	3,654	87.7
January.....	3,661	86.2
February.....	3,876	86.9
March.....	3,938	86.3
April.....	3,905	85.1
May.....	3,859	85.9
June.....	3,708	85.3

Graph XXIV—Pupils Attending Half Day Sessions by Grades

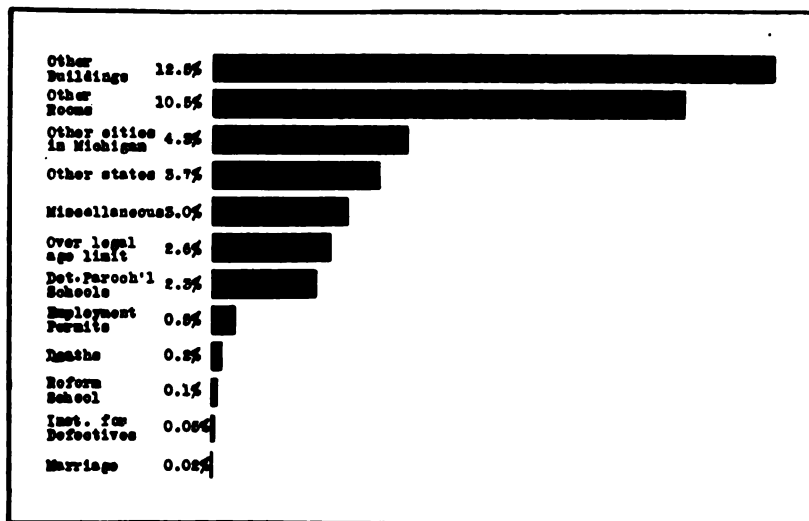


**Table XXIV—Pupils on Half Day Sessions by Grades
1919-20**

Grade	Registration in Grade	No. Attending Half Days	Percent of Registration
1st	22026	10645	48.3
2nd	14789	4565	30.8
3rd	13234	2557	19.3
4th	12569	1308	10.4
5th	11971	458	3.8
6th	10022	57	.5
Total	84611	19579	23.1

The total number of children on half day sessions in June, 1919-20, was 23.1% of the registration in the first six grades. Beyond the third grade the situation is not very serious. This condition will be practically eliminated by January, 1922, when the 1920-21 building program will become fully effective.

Graph XXV—Analysis of Lefts 1919-20

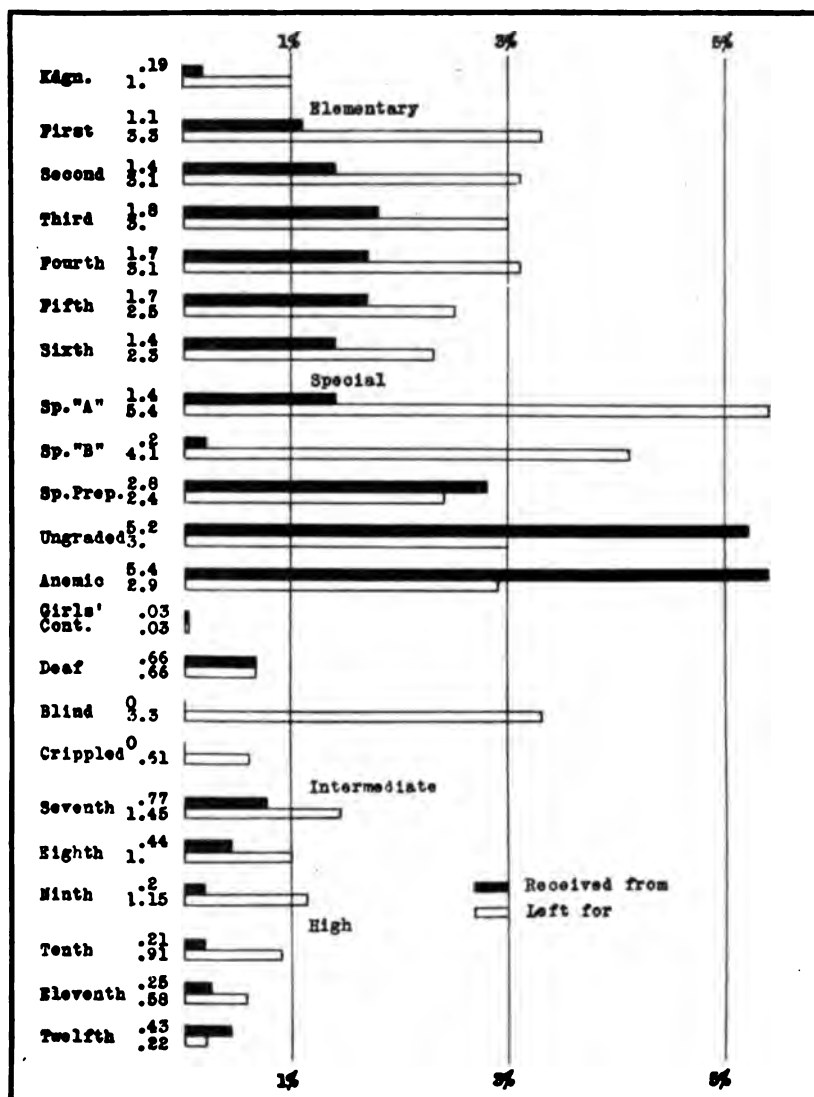


The greatest single factor is the moving about of families from one section of the city to another. This change amounted to 12.5% of the registration. Moving out of the city and state accounted for a total of 11,121 children, or 8% of the registration. Thus, moving about the city and moving out of the city and state accounted for 20.5% of the total changes in the schools. There were 10.5% changed from room to room within the building, due partly to reorganization, but largely to regrading.

Table XXV—Analysis of Lefts 1919-20

	Other Rooms	Other Buildings	Detroit Parochial Schools	Other Cities in Mich.	Other States	Reform School	Institute for Defectives	Employment Permits	Marriage	Over Legal Age Limit	Deaths	Others
KDG.	1,481	1,445	171	474	379	3	2				41	897
1st.	4,054	3,871	736	1,254	916	18	14				48	845
2nd.	2,405	2,571	455	890	666	33	3			1	26	275
3rd.	1,669	2,054	396	699	691	27	6	1	2	4	24	231
4th.	1,497	2,086	388	638	657	25	1	2		10	19	190
5th.	1,177	1,714	301	601	505	23	6	12	2	36	18	227
6th.	974	1,216	234	457	415	9	4	28	5	61	6	174
Total Elem.	11,776	13,512	2,510	4,539	3,850	135	34	43	9	112	141	1,942
7th.	484	891	139	291	325	10	10	152	5	109	7	243
8th.	201	369	69	184	164	4	7	156	3	147	1	171
9th.	261	251	81	149	156	2	1	185	4	600	7	380
Total Interm.	946	1,511	289	624	645	16	18	493	12	856	15	794
10th.	104	76	30	47	57	2		60		273	10	145
11th.	40	52	12	24	34			21	1	210	7	69
12th.	27	19	3	10	22			3	1	63	2	38
Total High..	171	147	45	81	113	2		84	2	546	19	252
Spec. A.	46	292	69	57	29	4	9	2		11	1	27
Spec. B.	39	95	27	50	29	8	7	3	2	128	3	28
Spec. Prep. .	85	128	22	37	47	1		29		83		52
Ung.	12	90	12	20	17	10	3	34	1	71		20
Open Air. . .	26	75	8	11	9		1				3	17
Blind.		9	2	3	2			2		1		3
Cripples. . .	4	6	1	6	1							1
Deaf.	7	2	1	1	3					1		5
Total Spec..	219	697	142	185	137	23	20	70	3	295	7	153
Classes.												
Cont. Girls. .	17	64	1	25	14	1		17	2	900		50
Cont. Boys. .	58	11		23	26	1				690		5
Voc. Tr. Gr. Boys					1					5		1
Total Cont..	75	75	1	48	41	2		17	2	1,595		56
P. G.		3			5					7		1
Jr. College. .										183		
Det. Normal												84
Grd. Totals.	14,668	17,390	3,158	5,951	5,170	181	74	707	28	3,594	223	4,179
Percent of Registration	10.5	12.5	2.3	4.3	3.7	.1	.05	.5	.02	2.6	.2	3.

Graph XXVI—Transfers and Lefts,
from and to Parochial Schools

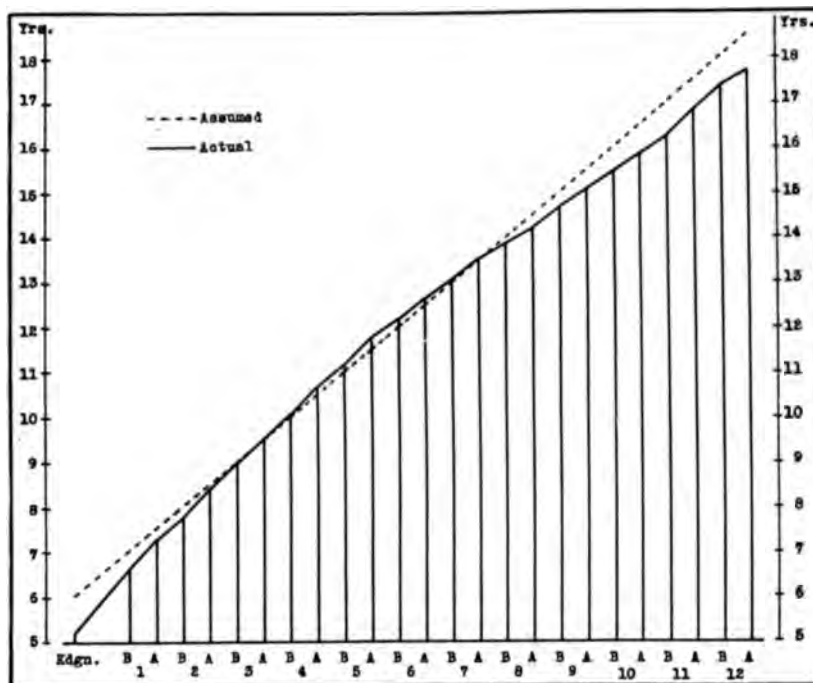


**Table XXVI—Transfers and Lefts, from and to
Parochial Schools**

Grade	Received from Parochial	Percent	Left for Parochial Schools	Percent
Kdg.....	29	.19	171	1.3
1st.....	250	1.1	736	3.0
2nd.....	206	1.4	455	3.1
3rd.....	234	1.8	396	3.0
4th.....	216	1.7	388	3.1
5th.....	204	1.7	301	2.5
6th.....	139	1.4	234	2.3
Elem.....	1249	1.4	2510	2.9
7th.....	73	.77	139	1.4
8th.....	30	.44	69	.99
9th.....	14	.2	81	1.15
Inter.....	117	.49	289	1.2
10th.....	7	.21	30	.91
11th.....	5	.25	12	.58
12th.....	6	.43	3	.22
High.....	18	.27	45	.67
Special.....	81	1.22	143	2.15
Grand Total.....	1494	1.08	3158	2.3

The number of children received from parochial schools during the year was 1494, or 1.08% of the total registration. The number of lefts for parochial schools was 3158, a net loss of 1654. After the sixth grade the largest number occur in the special classes due to the fact that parents, not satisfied with the special classification, attempt to seek some way out and send the children to the parochial schools. This is shown in Graph XXVI.

Graph XXVII—Assumed and Actual Median Ages of Pupils

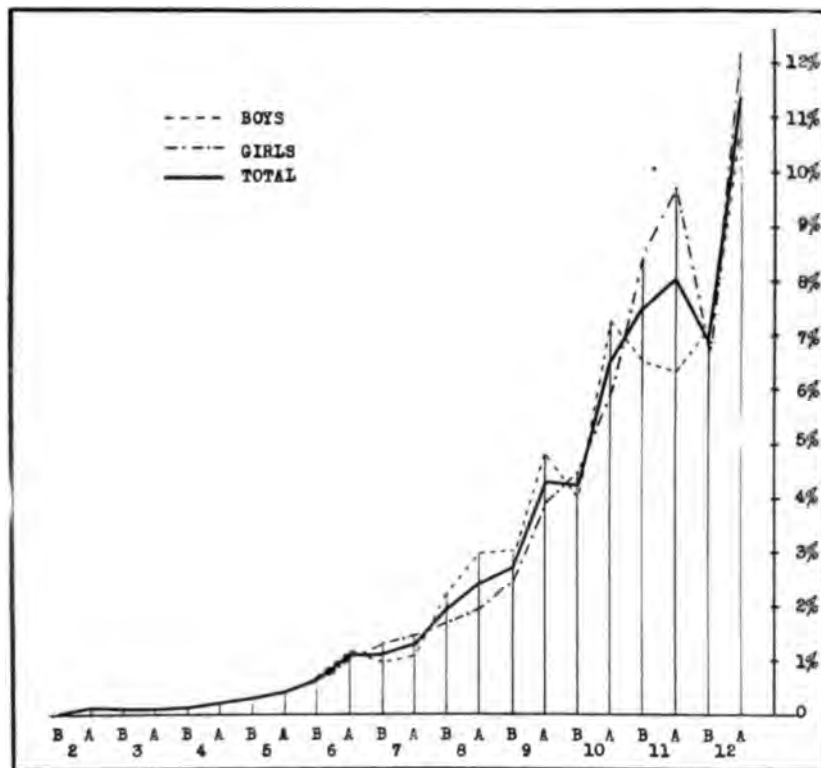


An analysis of the 1919-20 grade age report shows three variations in actual median age from the assumed median age curve. From kindergarten through 3B the actual median age is lower. From 4B through 7A it is higher, and from 8B through 12A it is lower.

Table XXVII—Assumed and Actual Median Ages of Pupils

Grade	Assumed	Actual
Kdg.....	6.00	5.16
B 1.....	7.00	6.64
A 1.....	7.50	7.32
B 2.....	8.00	7.78
A 2.....	8.50	8.44
B 3.....	9.00	8.98
A 3.....	9.50	9.50
B 4.....	10.00	10.50
A 4.....	10.50	10.73
B 5.....	11.00	11.18
A 5.....	11.50	11.78
B 6.....	12.00	12.16
A 6.....	12.50	12.61
B 7.....	13.00	13.05
A 7.....	13.50	13.53
B 8.....	14.00	13.89
A 8.....	14.50	14.27
B 9.....	15.00	14.74
A 9.....	15.50	15.11
B 10.....	16.00	15.52
A 10.....	16.50	15.87
B 11.....	17.00	16.32
A 11.....	17.50	16.83
B 12.....	18.00	17.34
A 12.....	18.50	17.70

Graph XXVIII—Percentage of Three-or-more-year Acceleration

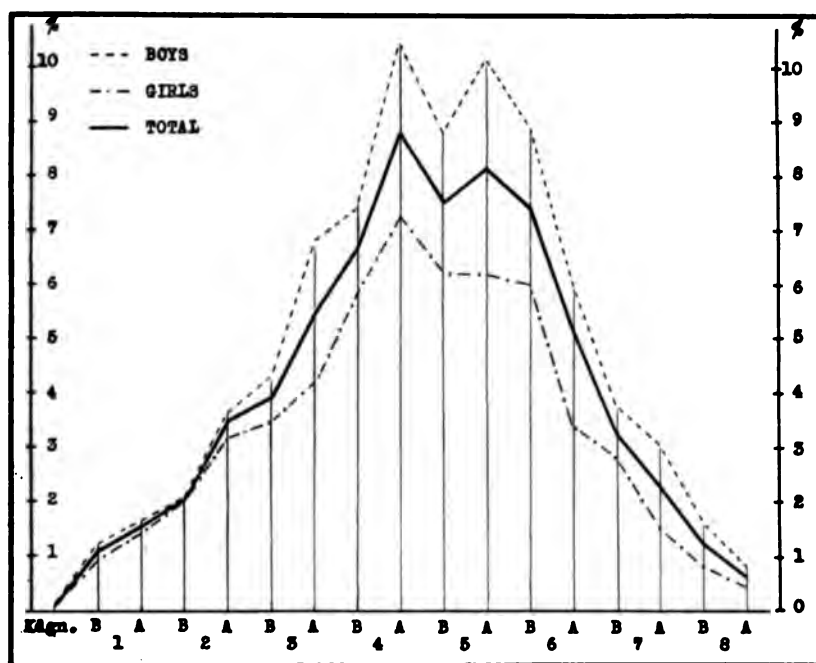


This graph and table show the percentage of pupils who were accelerated three or more years in 1919-20. The girls show a greater acceleration in the high grades, while the boys lead in the eighth and ninth.

**Table XXVIII—Percentage of Three-or-More-Year
Acceleration 1919-20**

Grade	No. Boys	Percent Boys	No. Girls	Percent Girls	Total	Percent Total
Kdg.						
B 1	3	.01	2	.01	5	.01
A 1						
B 2						
A 2	4	.15	3	.11	7	.13
B 3	5	.17	1	.03	6	.10
A 3	3	.12	3	.12	6	.12
B 4	7	.24	1	.04	8	.14
A 4	7	.28	4	.16	11	.22
B 5	8	.29	8	.29	16	.29
A 5	10	.40	11	.44	21	.42
B 6	14	.62	15	.64	29	.63
A 6	23	1.13	21	1.03	44	1.08
B 7	22	.96	28	1.30	50	1.13
A 7	19	1.11	24	1.45	43	1.28
B 8	40	2.26	32	1.68	72	1.97
A 8	35	2.94	26	1.94	61	2.44
B 9	50	3.04	41	2.45	91	2.74
A 9	46	4.82	39	3.88	85	4.35
B 10	35	4.	43	4.44	78	4.22
A 10	42	7.26	36	5.95	78	6.50
B 11	39	6.5	48	8.5	87	7.5
A 11	26	6.32	37	9.7	63	8.0
B 12	29	7.05	29	6.75	58	6.9
A-12	26	10.6	31	12.1	57	11.4

Graph XXIX—Percentage of Three or More Year Retardation



The percent of retarded girls is much lower than that of boys. This holds true from the first through the twelfth grades. The greatest amount of retardation is in 4A and 5A.

**Table XXIX—Percentage of Three or More Year
Retardation, 1919-20**

Grade	No. Boys	Percent Boys	No. Girls	Percent Girls	Total	Percent Total
Kdg.....	1	.05	1	.05	2	.05
B 1.....	73	1.24	53	.94	126	1.09
A 1.....	60	1.64	47	1.46	107	1.55
B 2.....	76	2.06	72	2.00	148	2.03
A 2.....	98	3.66	85	3.22	183	3.49
B 3.....	132	4.36	111	3.50	243	3.93
A 3.....	182	6.81	105	4.23	287	5.52
B 4.....	218	7.44	171	5.86	389	6.65
A 4.....	259	10.43	177	7.23	436	8.83
B 5.....	243	8.80	172	6.22	415	7.51
A 5.....	255	10.13	149	6.17	404	8.15
B 6.....	202	8.90	140	5.98	342	7.44
A 6.....	141	6.96	70	3.38	211	5.16
B 7.....	86	3.79	61	2.85	147	3.32
A 7.....	52	3.04	25	1.52	77	2.28
B 8.....	28	1.60	16	.82	44	1.21
A 8.....	9	.75	6	.45	15	.6

✓ A Study in Supervision

Two years ago the Board of Education, upon recommendation of the Superintendent, made Safety Education one of the subjects of the school curriculum. The first year was spent in an attempt to develop this subject through a part time supervisor and a committee of teachers. At the end of the first year the social importance of the subject was more fully realized and a full time supervisor was appointed. The second year was spent in experimental work, building of a scientific course of study and the development of the classroom through the principal. While the course of study was not completed until the close of the year, the actual program developed was based upon portions of this work. A publicity campaign on the monthly distribution of accidents by schools was carried on in the Detroit Educational Bulletin. A brief synopsis of some of these studies and the results is presented in the following pages.

Graph XXX—Traffic Accidents Classified by School Months 1919-20

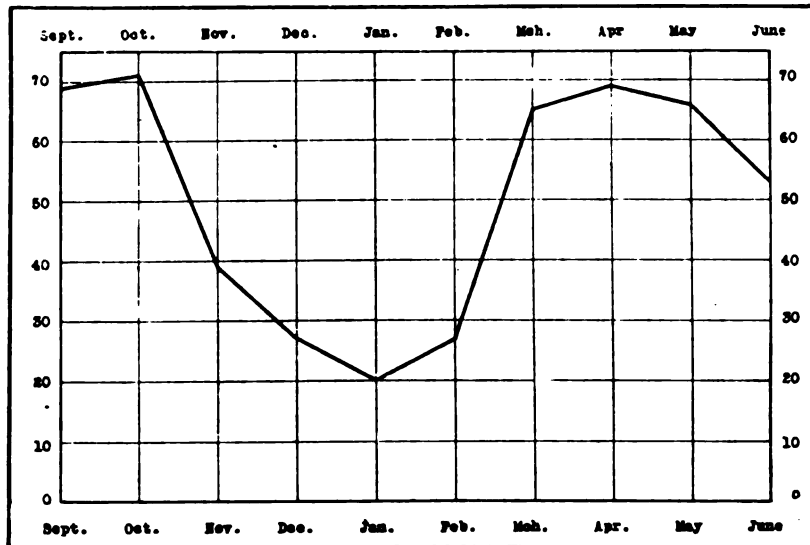


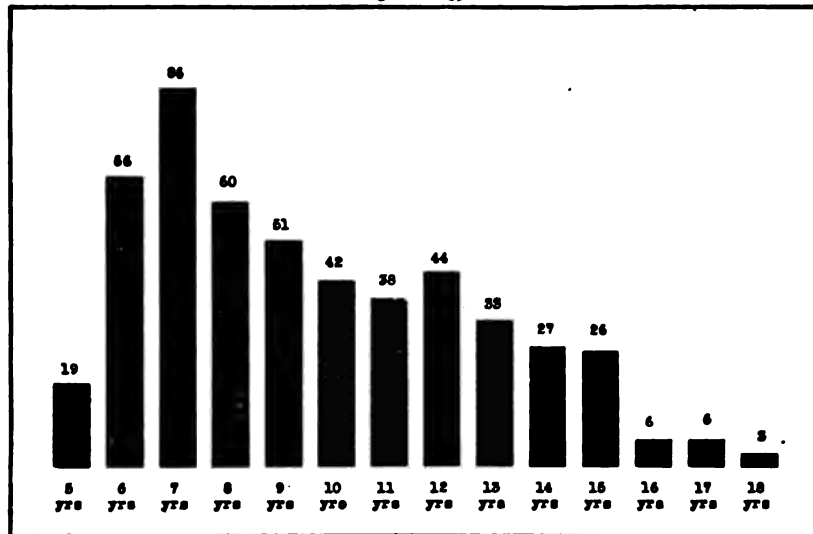
Table XXX—Traffic Accidents Classified by School Months 1919-20

Months	Total	Months	Total
September.....	69	February.....	27
October.....	71	March.....	65
November.....	39	April.....	69
December.....	27	May.....	66
January.....	20	June.....	53

This curve shows September and October as peak months. The curve drops during the winter months when precaution is preached most intensively. A contributing factor is the care exercised by officials and drivers during this period; another is the fact that traffic is not as heavy. Pleasure riding has been cut to a minimum.

In March, with the advent of spring weather, the accidents again increase. Safety officials care and safety education continue. These campaigns in the schools, the increase in accidents.

Graph XXXI—Accidents Classified by Age



**Table XXXI—Traffic Accidents Classified by Age of the
School Children**

Age	Number
5.....	19
6.....	66
7.....	86
8.....	60
9.....	51
10.....	42
11.....	38
12.....	44
13.....	33
14.....	27
15.....	26
16.....	6
17.....	6
18.....	3
Total.....	506

Another study was the classification of accidents by age to determine the immediate point of attack. The foregoing graph shows that the greater number of accidents run below the sixth grade. The primary attack upon this accordingly developed in the elementary school.

Graph XXXII—Accidents Classified by Cause

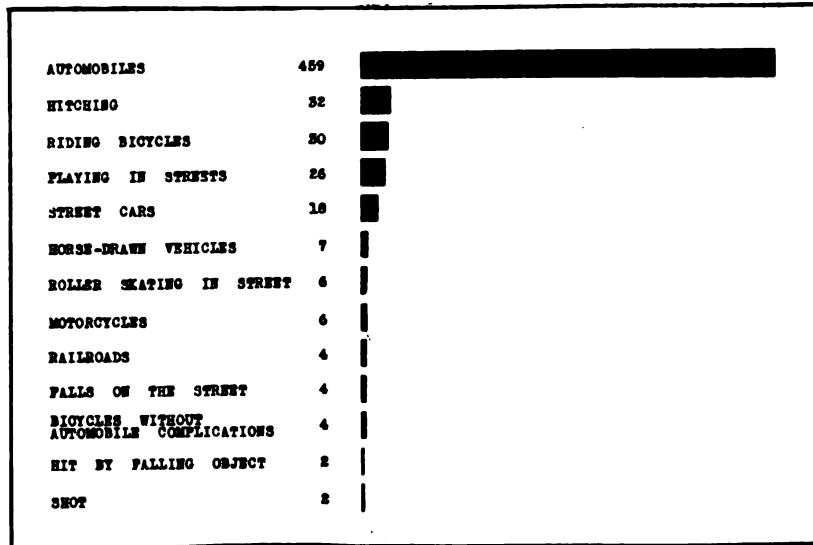


Table XXXII—Accidents Classified by Cause

Automobiles.....	459
Hitching.....	32
Riding bicycles.....	30
Playing in the street.....	26
Street cars.....	18
Horse drawn vehicles.....	7
Roller skating in the street.....	6
Motorcycles.....	6
Railroads.....	4
Falls on the street.....	4
Bicycles without automobile complications...	4
Hit by falling object.....	2
Shot.....	2

A study of the causes of accidents showed that the chief drive in a preventive campaign must be made against automobiles. It also showed that a campaign of education among school children would be of little avail unless police, courts and citizens co-operated to the fullest extent. Such co-operation has been made effective.

Graph XXXIII—Comparative Accident Record by Years

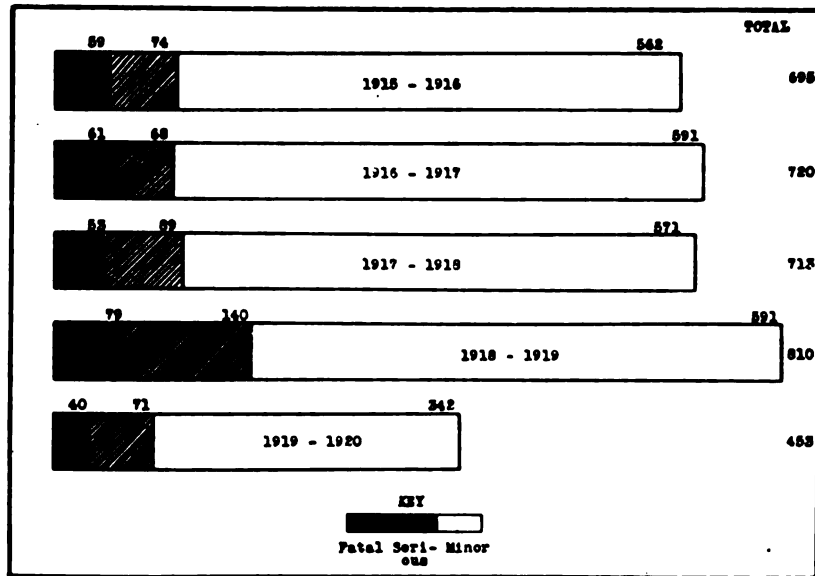


Table XXXIII—Comparative Accident Record by Years

Year	Minor	Serious	Fatal	Total	Population	Percent Population
Sept. 1915 to June 1916	562	74	59	695	734,562	.09
Sept. 1916 to June 1917	591	68	61	720	870,000	.08
Sept. 1917 to June 1918	571	89	53	713	925,000	.07
Sept. 1918 to June 1919	591	140	79	810	950,000	.08
Sept. 1919 to June 1920	342	71	40	453	993,739	.04

The effectiveness of the combined efforts of the schools, the police department, the courts and the Detroit Automobile Club are shown in Graph XXXIII.

Thirty-nine more children are alive in Detroit as a result

Sixty-nine children have escaped serious injury and possibly permanent crippling.

Two hundred and forty-nine have been spared the nerve shock and loss of time due to minor accidents.

Graph XXXIV—Resignation of Teachers by Years

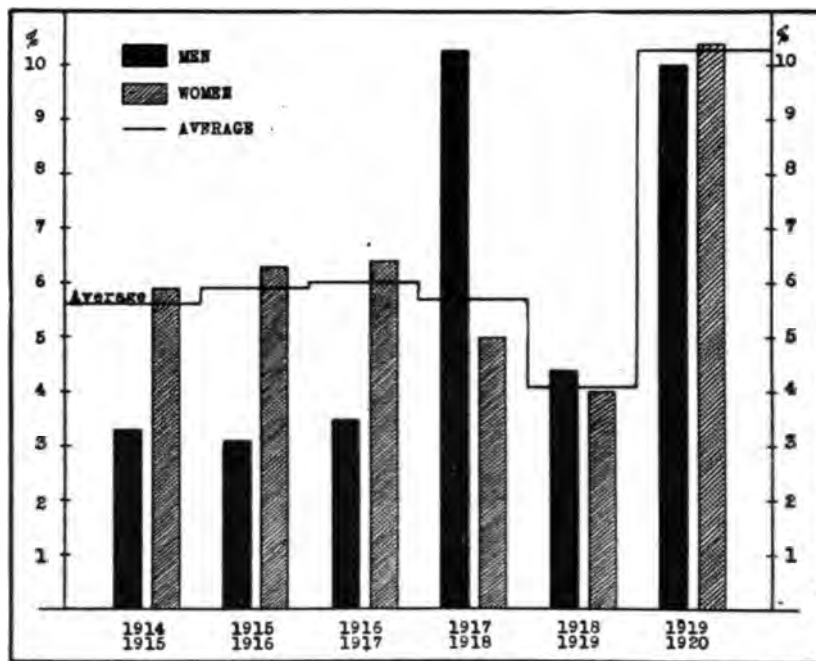


Table XXXIV—Resignation of Teachers by Years

Year	Resignations			Total No. of Teachers			Percent of Resignations		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
1914-15	8	111	119	2290	1896	2135	3.3	5.9	5.6
1915-16	9	133	142	2290	2103	2396	3.07	6.3	5.9
1916-17	148	148	296	2290	2112	2650	3.5	6.4	6.0
1917-18	235	235	470	2290	2171	3018	10.3	5.7	5.7
1918-19	148	148	296	2290	2171	3563	4.1	4.1	4.1
1919-20	388	388	776	2290	2171	3750	10.3	10.3	10.3

A study of resignations from the teaching staff was made for a period of six years to determine the general turn over. This ranged from 5.0% in 1914-15 to 10.3% in 1919-20. The average for this period was 6.96%. Up to 1919-20 the normal rate was from 4.1% to 6%. Economic conditions account for the big increase last year.

The largest percentage of men left the system in 1917-18, but a corresponding decrease among the women lowered the average percent to 3.1%. The last year of the war found the smallest percentage of resignations.

The percentage of male teachers in 1919-20 was 13.2%.



EVENING HIGH DRAWING CLASS

Graph XXXV—Comparative Cost of Buildings per Cubic Foot by Years

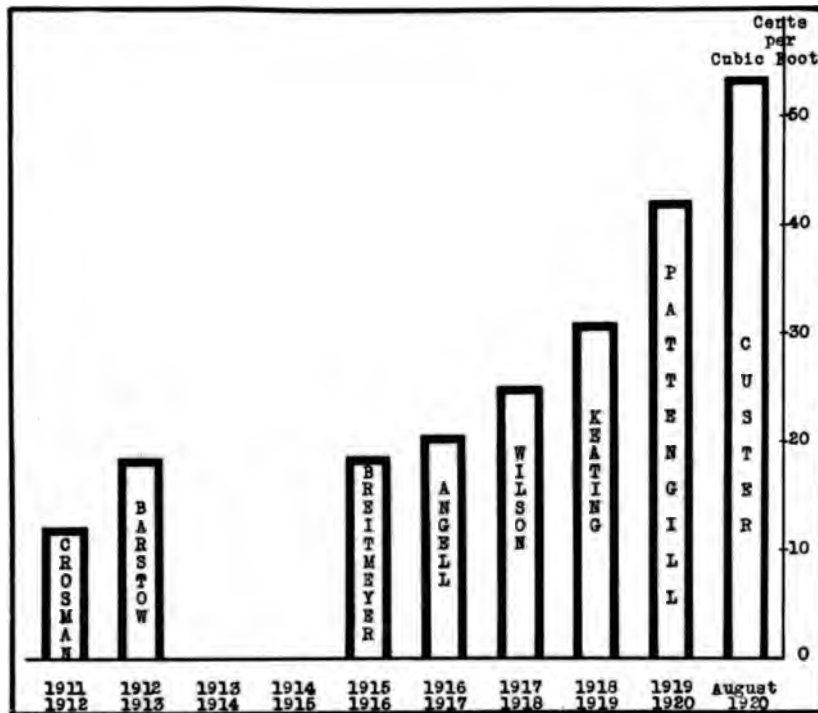


Table XXXV—Comparative Cost of School Buildings per Cubic Foot, 1911-20

Year of Building	School	Total Cost	Total Cubeage	Cost per Cu. Foot
1911-12	Crosman	\$ 82,500.00	673,218	.122
1912-13	Barstow	76,800.00	416,424	.184
1915-16	Breitmeyer	113,586.78	616,129	.185
1916-17	Angell	138,214.55	673,612	.205
1917-18	Wilson	226,453.75	904,116	.250
1918-19	Keating	254,589.66	824,908	.308
1919-20	Patterson	247,871.50	824,908	.421
1920-21	Custer	440,999.73	824,908	.536

Graph XXXV shows the comparative cost of mounting building costs, from 1911 to August 1920. Since the cost has increased 438%.



CASS TECHNICAL HIGH SCHOOL

First Floor Plan

1 auditorium, size 44' 2" x 47' 4".
1 clinic and waiting room.
2 literature rooms.
2 science rooms.
1 music room.
1 studio.
1 kindergarten.
4 home rooms.
Principal's office.
Boys' toilet room.
Girls' toilet room.
484 lockers in halls.

Second Floor Plan

1 library, size 30' 1" x 40' 6".
10 home rooms.
1 recitation room.
1 rest room.
Boys' toilet room.
Girls' toilet room.
496 lockers in halls.

The special features of this standardized plan are:

(1) Gymnasium

A gymnasium of size sufficient to accommodate 80 pupils each period or 960 pupils daily.

(2) Showers and Lockers

Showers and lockers adjoining gymnasium.

(3) Play Courts

Two glass-covered play courts, usable throughout the year, combined capacity 80 pupils each period of the day. Total daily capacity, 960 pupils.

(4) Lunch Room

Accommodations for 70 pupils or teachers at tables. Counter arrangements for simple serve-self luncheon for pupils or teachers. Service supplied by domestic science classes.

(5) Clinic

Clinic room with waiting room adjoining it for use of Board of Health physicians, nurse and mental examiners.

(6) Auditorium

Auditorium, size 44' 2" x 66' 10", provided with adequate stage and suitable equipment for picture projection. Normal capacity for regular auditorium work, 80 pupils each period, or 960 pupils daily. In very large schools this capacity may be increased to 160 pupils each period, or 1,920 pupils per day.

(7) Library

Large library room in constant charge of a teacher-librarian. Capacity at least 40 pupils each period, or 480 pupils daily.

(8) Science Room

Two rooms for nature study and geography, including glass covered herbarium, aquarium and outdoor roof garden for germination in spring and fall.

Total combined capacity of two rooms 80 pupils each, or 960 pupils daily.

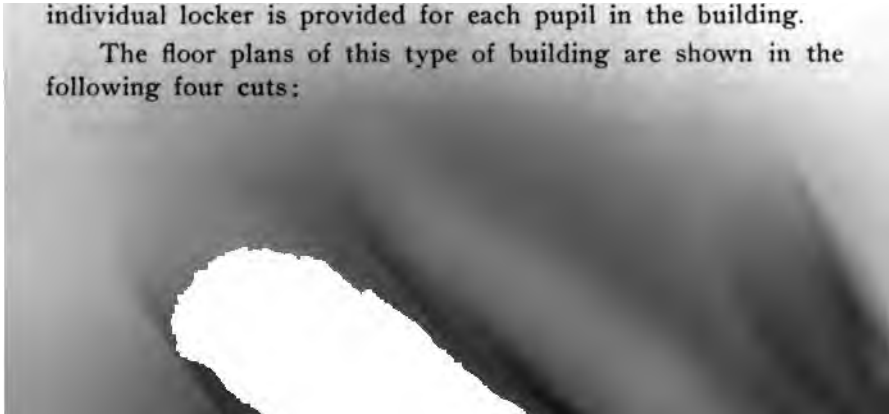
(9) Home Rooms

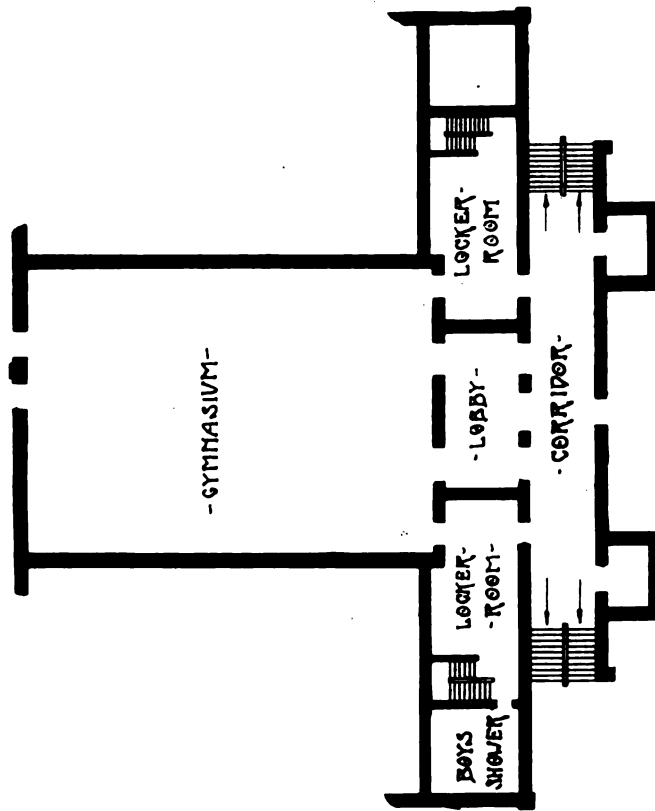
Fourteen home rooms, with 40 seats each. Total daily capacity of each home room, two groups of 40 pupils.

(10) Lockers for Wraps

All lockers for pupils' wraps are located in the halls. An individual locker is provided for each pupil in the building.

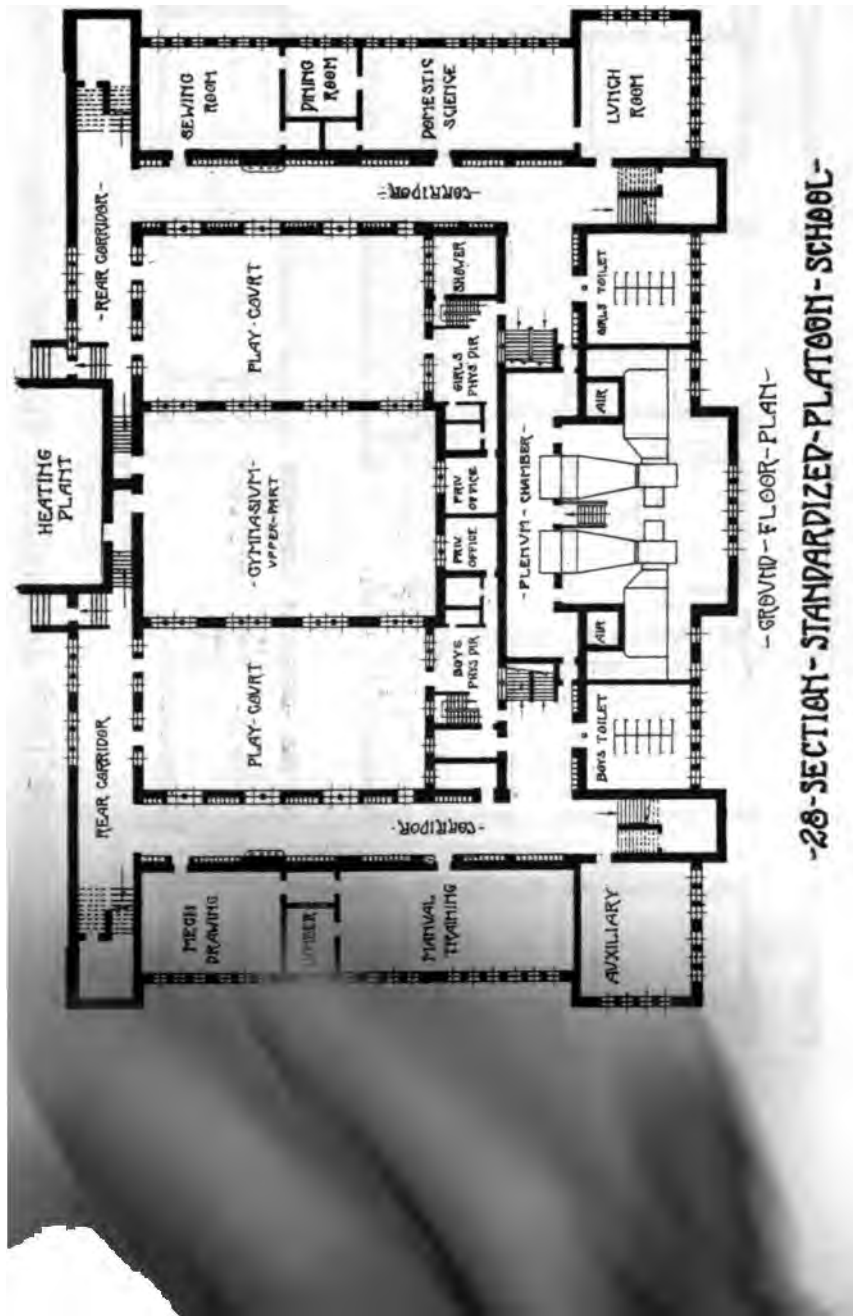
The floor plans of this type of building are shown in the following four cuts:

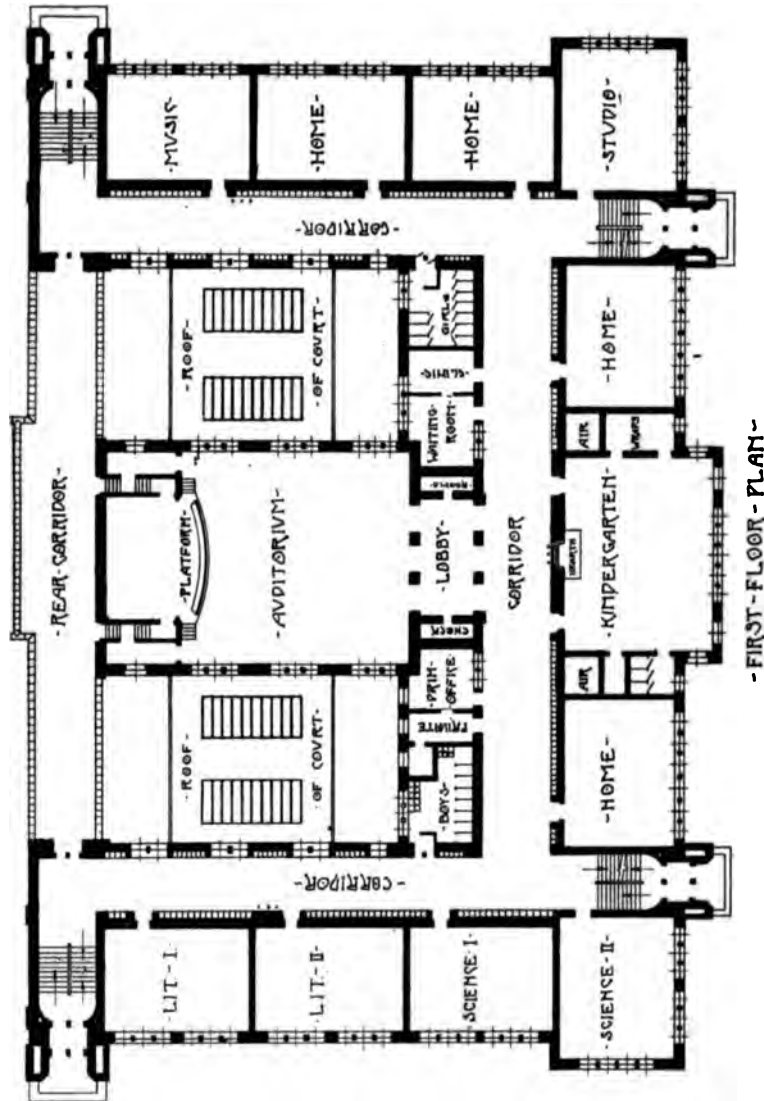




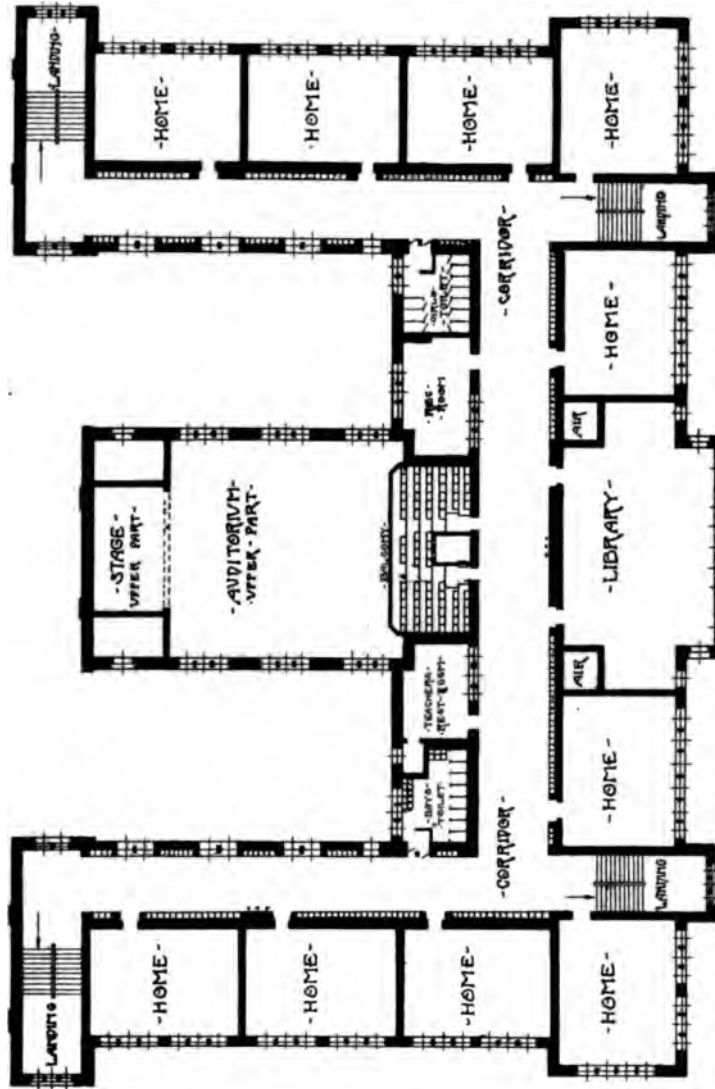
- BASEMENT - PLAN -

- 28 - SECTION - STANDARDIZED - PLATOON - SCHOOL -





-28-SECTION-STANDARDIZED-PLATOON-SCHOOL-



- SECOND-FLOOR-PLAN -
-28-SECTION-STANDARDIZED-PLATOON-SCHOOL-

Miscellaneous Tables

Table XXXVI—Registration by Grades—1919-20

	Boys	Girls	Total
Kindergarten.....	8,404	8,214	16,618
1st.....	11,460	10,566	22,026
2nd.....	7,551	7,238	14,789
3rd.....	6,673	6,561	13,234
4th.....	6,331	6,238	12,569
5th.....	6,020	5,951	11,971
6th.....	5,037	4,985	10,022
Total Elementary.....	43,072	41,539	84,611
7th.....	4,924	4,670	9,594
8th.....	3,338	3,629	6,967
9th.....	3,670	3,435	7,105
Total Intermediate.....	11,932	11,734	23,666
10th.....	1,600	1,707	3,307
11th.....	1,056	1,023	2,079
12th.....	693	720	1,413
Total High.....	3,349	3,450	6,799
Special A.....	863	321	1,184
Special B.....	464	201	665
Special Preparatory.....	431	500	931
Ungraded.....	400	10	410
Open Air.....	140	138	278
Classes for Blind.....	33	28	61
Classes for Cripples.....	97	67	164
Classes for Deaf.....	88	64	152
Total Special Classes.....	2,516	1,329	3,845
Vocational Classes.....	98		98
Continuation.....	1,259	1,461	2,720
Post Graduates.....	23	35	58
Junior College.....	444	164	608
Detroit Normal.....	5	428	433
College of Medicine and Surgery.....	144	4	148
Total.....	71,246	68,358	139,604

Table XXXVII—Length of School
Year

Year	Number Days	Year	Number Days
1899-1900.....	194	1910-1911.....	191
1900-1901.....	187	1911-1912.....	194
1901-1902.....	188	1912-1913.....	188
1902-1903.....	188	1913-1914.....	181
1903-1904.....	192	1914-1915.....	184
1904-1905.....	192	1915-1916.....	191
1905-1906.....	192	1916-1917.....	190
1906-1907.....	193	1917-1918.....	182
1907-1908.....	193	1918-1919.....	179
1908-1909.....	194	1919-1920.....	186
1909-1910.....	192		
Average.....		189	



BEGINNERS' EVENING LANGUAGE CLASS

Table XXXVIII—High Schools

Schools	Total Registration	Average Membership	Average Attendance	Percentage of Attendance	No. Belonging at Close	No. Instructors Excluding Prin. and Clerks	Pupils per Based on Av. Memb.	No. Graduates	
								Boys	Girls
Cass.....	1,519	1,133.8	1,032.3	91.	1,073	73	15.5	86	2
Central.....	2,025	1,848.6	1,710.7	92.5	1,768	97	19.	140	138
Eastern.....	1,874	1,506.7	1,402.3	93.	1,519	60	25.1	96	107
Nordstrum.....	841	754.7	709.8	94.	707	43	17.5	16	21
Northeastern.....	1,497	1,188.9	1,066.2	89.7	1,195	68	17.4	45	48
Northern.....	2,494	2,023.5	1,852.1	91.5	1,944	101	20.	93	111
Northwestern.....	2,878	2,657.0	2,405.8	90.5	2,544	111	23.9	78	141
Southeastern.....	1,618	1,283.9	1,185.3	92.3	1,234	68	18.8	12	27
Western.....	1,163	907.6	846.8	93.3	843	48	18.9	56	60
Wilkins.....	857	614.5	552.7	89.9	570	25	24.5	1	9
Total.....	16,766	13,919.2	12,764.	91.7	13,397	694	20.	623	684

Summer Schools 1919

A total of 6,652 were registered during the 1919 summer session. The average membership was 5,737.6 and the average attendance 5,526.3.

Table XXXIX—Registration and Attendance

Registration Boys	Registration Girls	Total	Membership at close	Average Membership	Average Attendance	Percent of Attendance
3,286	3,224	6,510	5,309	5,619.6	5,309.9	94.2
JUNIOR COLLEGE						
98	44	142	130	118	116.4	98.7

There were 3,547 pupils taking advanced or new work and 76% of these were promoted. Nine hundred and sixty-two were repeaters and 68% of these made passing grades. This is shown by buildings in the following table:

Table XL—Repeaters and Pupils Taking New Work

SCHOOLS	1919 SUMMER SESSION							
	Number Repeat- ing Work		Number Taking New Work			Percent Of Re- peaters Promoted	Percent Of Pupils Taking New Work Promoted	Total Percent Promoted
	Boys	Girls	Boys	Girls	Total Regis- tration			
Capron	20	29	83	116	248	78	65	69
Cass Tech.	No data							
Northern	48	40	183	168	439	67	75	73
Nordstrum	34	33	135	109	311	88	86	87
Cass Elem.	29	21	86	85	221	58	83	77
Lincoln	25	31	220	235	511	69.6	72.9	72.4
Ellis	4	8	106	118	236	100	91.5	91.9
Burton	..	15	...	49	64	23.4	95.3	*118.7
Central	55	46	391	308	800	81	64	66
Southern	41	42	109	121	313	78	82	81
Wilkins	11	68	15	140	134	81	64.5	70
Northwestern	61	39	124	179	403	26.8	62.4	44.6
Eastern	78	84	220	247	629	66.6	75.6	71.8
Totals and Average	406	456	1672	1875	4309	68.11	76.26	76.86

*Double Promotions.

Table XII—Evening School Registration, 1919-20

School	ELEMENTARY					HIGH					TOTAL				
	Men	Women	Average		Percent of Attend.	Men	Women	Average		Percent of Attend.	Men	Women	Average		Percent of Attend.
			ship	Member				ship	Member				ship	Member	
Cass.....	901	58	220.6	140.6	63.7	4,217	374	1,045.5	786	75.1	5,118	432	1,266.1	926.6	73.1
Central.....	192	151	126.9	66.3	52.2	1,292	764	793.9	413.2	52.1	1,484	915	920.8	479.5	52.1
Eastern.....	352	76	239.3	141.5	54.6	729	678	312.2	168.9	54.0	1,081	754	571.5	310.4	54.3
Nordstrum.....	123	87	38.9	22.4	57.5	318	166	107.8	76.8	71.2	441	253	146.7	99.2	67.6
Northeastern.....	434	96	303.1	182.4	60.1	550	505	240.1	140.6	58.5	984	601	543.2	323.0	59.4
Northern.....	199	69	128.6	82.9	64.4	558	438	279.2	184.7	66.1	757	507	407.8	267.6	65.6
Northwestern.....	88	19	52	24.1	46.3	428	712	287.5	157.5	54.8	516	731	339.5	181.6	53.4
Southeastern.....	142	41	93.9	65.5	69.7	365	439	199.1	112.	56.2	507	480	293.0	177.5	60.5
Western.....	85	9	53.8	30.9	57.4	416	345	231.6	145.6	62.8	501	354	285.4	176.5	61.8
Wilkins.....	.....	.....	.....	.....	.....	282	298	201.2	109.5	54.4	282	298	201.2	109.5	54.4
Bishop.....	248	63	234.7	155.8	66.3	.....	.....	.....	.....	.....	248	63	234.7	155.8	66.3
Mothers.....	.....	564	118	62	52.5	.....	.....	.....	.....	.....	.....	564	118	62	52.5
Solvay.....	564	.....	314	101	32.1	.....	.....	.....	.....	.....	564	.....	314	101	32.1
Logan.....	38	8	36	26	72.2	.....	.....	.....	.....	.....	.....	8	36	26	72.2
Ellis.....	160	12	111.5	76.4	68.5	.....	.....	.....	.....	.....	160	12	111.3	76.4	68.5
McMillan.....	130	10	135.9	62.5	45.9	.....	.....	.....	.....	.....	130	10	135.9	62.5	45.9
Total.....	3,656	1,263	2,227.2	1,240.3	55.6	9,155	4,719	3,698.1	2,294.9	62.5	12,811	5,982	5,925.3	3,535.1	59.6
Senior Cont.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	102	.....	22.6	18.8	83.1
Junior College.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	79	62	76.7	47.5	61.9

Table XLII—Building Table by Years

	New Bldgs.	Additions to Bldgs.	New Sites	Additional Land	Portable School	Rented Bldgs.	Schools Annexed	Athletic Fields	Completing Bldg.	Appropriations allowed New Buildings and Sites
1912.....										
1913.....	6 a	5	3	7	.....	5	.....	.....	1	\$ 954,000.00
1913.....										
1914.....	8 b	.....	9	12	6	.....	.....	1	3	1,996,000.00
1915.....	11 c	1	5	6	.....	.....	.....	.....	3	1,718,000.00
1916.....	4	1	9	12	.....	2	.....	.....	1	1,200,500.00
1917.....		2	9	6	.....	.....	9	.....	1	1,966,000.00
1918.....		5	5	7	1	.....	11	.....	6	1,651,000.00
1919.....	4	1	2 e	5	.....	1	3	1	.....	3,172,457.66
1920.....	5	17	2	4	8	6	2	.....	.....	2,472,100.00
47	32	44	59	14	15	25	2	15	\$15,130,057.66	

Table XLIII—Instruction Cost Per Capita

	Kindergarten	Primary	Grammar	Intermediate	High	Case Technical	Wilkins High School	Junior College	Detroit Normal	College of Medicine and Surgery
1910-11.....	33.29	23.88	36.17	.....	59.79	.....	.....	.....	.....	.....
1911-12.....	37.41	24.33	34.61	.....	64.31	.....	.....	.....	.....	.....
1912-13.....	36.24	21.91	34.84	.....	71.95	.....	.....	.....	.....	.....
1913-14.....	35.51	23.02	33.81	.....	68.92	.....	.....	.....	.....	.....
1914-15.....	33.37	22.71	36.07	67.80	72.42	.....	.....	.....	.....	.....
1915-16.....	32.65	21.57	32.09	54.31	74.09	.....	.....	.....	.....	.....
1916-17.....	32.56	22.37	33.82	57.55	74.10	.....	.....	.....	.....	.....
1917-18.....	35.92	25.63	37.21	65.13	78.14	.....	.....	.....	.....	.....
Elem. Schools	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1918-19.....	41.16	50.38*	.....	*83.99	117.58*	.....	.....	58.77*	155.55*	350.47*
1919-20.....	.....	31.97	44.45	89.86	103.07	169.12	92.65	91.03	183.63	303.92

*This per capita cost is based on the Total Cost.

Instruction Cost was not computed, owing to change in accounting procedure.

Report for 1918-19

A brief report for the school year ending June 30, 1919, is presented in the following pages.

The unusual growth of the past six years was continued in 1918-19. The total registration during the year was 128,456, an increase of 10,929 pupils. The average membership was 101,873, which was 11,075 greater than the preceding year, and the average attendance was 94,621, or an increase of 9,969.

Marked increases were shown by the several departments. The kindergarten enrollment was 16,683, an increase of 2,147. The enrollment in the primary grades was 57,421 and that of the grammar grades was 28,720. The special rooms cared for 5,925. The Junior and Senior high schools showed an enrollment of 18,707, and the college units had 1,000 students. This detailed registration follows:

Table XLIV—Registration by Grades

	Boys	Girls	Total
Kindergarten.....	8,437	8,246	16,683
First Grade.....	10,260	9,426	19,686
Second Grade.....	6,827	6,596	13,423
Third Grade.....	6,164	6,063	12,227
Fourth Grade.....	6,118	5,967	12,085
Fifth Grade.....	5,507	5,350	10,857
Sixth Grade.....	4,510	4,504	9,014
Seventh Grade.....	2,656	2,805	5,461
Eighth Grade.....	1,606	1,782	3,388
Open Air.....	104	103	207
Special Rooms.....	455	280	735
Continuation Schools.....	1,472	1,393	2,865
Dressmaking Classes.....	0	314	314
Special Preparatory Classes.....	157	363	520
Special Schools—Blind, Cripples & Deaf	184	126	310
Ungraded Rooms.....	462	12	474
Special Ungraded.....	227	134	361
Opportunity Rooms.....	31	34	65
Prevocational.....	74	0	74
Total Elementary Schools.....	55,251	53,498	108,749

Junior High Schools

	Boys	Girls	Total
Seventh Grade.....	604	600	1,204
Eighth Grade.....	438	464	962
Ninth Grade.....	156	179	335
Total Intermediate Schools.....	1,258	1,243	2,501

High Schools

Seventh Grade.....	791	615	1,406
Eighth Grade.....	888	910	1,798
Ninth Grade.....	3,003	2,991	5,994
Tenth Grade.....	1,436	1,620	3,056
Eleventh Grade.....	987	1,111	2,098
Twelfth Grade.....	386	988	1,374
Post Graduates.....	26	34	60
Total High Schools.....	7,837	8,369	16,206
Total Junior College.....	326	145	471
Total College of Medicine and Surgery.....	130	3	133
Total Detroit Normal School.....	57	399	396
Total Registration—1918-1919.....	64,859	63,597	128,456
—1917-1918.....	59,260	58,267	117,527
Increase in 1918-1919.....	5,599	5,330	10,929

War Work

The war work of the Detroit Public Schools was well covered in last year's report and in the outline for the teaching of patriotism. In commenting on the achievements of the schools in the Liberty Loans, Mr. F. R. Fenton, Federal Reserve Director of Sales for Michigan, says, "I think your schools have made a marvelous record, but everything Detroit does is always done in a most thorough way, and it is not surprising such wonderful results follow."

Mr. John W. Staley, general chairman of the Detroit district, writes: "I want to express the appreciation of our committee for the wonderful efforts of the school children, the principals, and the teachers, not only in connection with the Victory Liberty Loan, but with all of the five campaigns. I cannot emphasize too much our appreciation of this work, which I know is reflected by the Federal Reserve Bank of Chicago and also by the Treasury Department itself, and above all I feel that the work of the school children in these campaigns has had an indirect benefit on them and on the citizens of this city the value of which cannot be calculated."

Following are the results of these loans:

Table XLV

Loan	Amount	Subscriptions
I.....	\$ 300,000	
II.....	1,450,000	12,043
III.....	4,600,000	37,840
IV.....	8,889,000	85,762
V.....	3,675,600	24,000
Totals.....	<u>\$18,914,600</u>	<u>159,645</u>



LELAND SCHOOL FOR CRIPPLES

Part III

Financial Report

The accompanying reports have been prepared from the cost records of the Board of Education, for the fiscal year ended June 30, 1920.

The total cash available during the year amounted to \$10,100,558.44. The expenditures for various purposes totaled \$11,587,018.76, resulting in an overdraft at the close of the year of \$1,486,460.32.

During the ten months of the school year the average monthly disbursements for the cost of instruction, operation and maintenance of the school system amounted to \$814,461.55, while disbursements for improvement work total \$258,041.32, or a gross monthly average of \$1,072,503.37 for all purposes.

Table XLVI—Percentage of Cost

The different elements of yearly cost contained in the conduct of the school plant is as follows:

Division of Cost	Amount	Percentages
Administration.....	\$ 404,768.64	4.6
Instruction.....	6,245,142.65	70.4
Operation.....	947,337.01	10.6
Maintenance.....	208,441.23	2.3
Depreciation.....	522,659.60	5.9
Miscellaneous.....	52,458.81	.6
Baths.....	46,726.36	.5
Bonuses.....	447,913.88	5.1
Total Conduct of School Plant.....	\$8,875,448.18	100.0%

The total conduct of the school plant consists of 85% regular salaries and bonuses, 9% materials and supplies and 6% depreciation.

Administration

l Educational and business administration consists of the salaries and supplies of the superintendent, assistant superintendents, supervisors, business manager and clerks in these offices.

Instruction Cost

Teaching cost and administrative school cost has been set up so as to show the two elements of instruction cost separately. Teaching cost consists of teachers' salaries and supplies used in teaching. Salaries of the principals, grade principals, clerks, bookkeepers, librarians and administrative school supplies constitute the administrative school cost. A comparative per capita cost of instruction is included in these reports.

Operation Cost

c The operation cost consists of engineers' and janitors' salaries, supplies, gas, electricity and fuel.

Maintenance Cost

c Maintenance cost consists of depreciation, repairs to buildings and equipment and replacement of equipment. Depreciation is computed on the basis of 3% per annum on buildings and 8% per annum on equipment. The average maintenance cost of the elementary schools is \$0.0043 per cubic foot.

Table XLVII—Balance Sheet as of June 30, 1920

Assets Applicable to Appropriation Reserves and Trust Accounts

Cash—City Treasurer (Trust accounts).....	\$ 4,818.43
Authorized and Unsold Bonds.....	5,428,100.00
Deficit—Teachers Salary Fund.....	196,649.45
Estimated Receipts, 1919-1920.....	20,000.00
1920-1921 Appropriations for 1919-1920 Deficits.....	1,694,336.15
Total.....	\$ 7,343,904.03

Real and Personal Property

General Stores—Books and Supplies.....	57,395.75	
Text Books and Supplies in Schools (estimated).....	500,000.00	
Additions to Land, Buildings, Equipments and Improvements for year ending June 30th, 1920.....	2,921,613.21	
Land, Buildings and Equipment June 30th, 1919.....	19,219,773.68	
Total		22,698,782.64
Petty Cash.....	2,050.00	
Unexpired Insurance Premiums.....	2,093.64	
Unclaimed Wages.....	623.67	
		<u>4,767.31</u>
Total Assets		\$30,047,453.98

**Liabilities and Reserves to be Paid Out of Appropriation
and Trust Account Assets**

Accounts Payable—Maintenance Fund.....	53,730.03	
Accounts Payable—Building Fund.....	2,607,653.49	
Payrolls Payable.....	43,672.94	
Reserves for Appropriation balances transferred to 1920-1921.....	1,442,353.57	
Reserves for Appropriation Surpluses.....	10,632.10	
Reserves for Evening High School Fee Fund....	247.00	
Reserves for Teachers Institute Fee Fund.....	1,543.00	
Reserves for Scripps Memorial Fund.....	3,275.43	
Reserves for Depreciation of Buildings and Equipment.....	522,659.60	
Assets Applicable to the Conduct of the School Plant and Improvement Projects.....	383,340.40	
*Loan and Advances due City of Detroit.....	*\$ 2,274,796.47	
Total		7,343,904.03

**Surplus Real and Personal Property
Disbursed as Follows:**

Investment of the Board of Education.....	22,698,782.64	
Reserve for Contingent Expenses.....		
Reserve for Unaccrued Interest.....		
Reserve for Unclaimed Wages.....		
Total Liabilities		
*Overdraft Board of Education.....		
Advanced by Common Council.....		
Loan 1919-1920.....		
Total	\$ 2,274,796.47	

HYGIENE INSTRUCTION**HANDKERCHIEF DRILL****TOOTH BRUSH DRILL**

Table XLVIII—Statement of the Cash Disbursements for the Year Ending June 30, 1920

Cash Disbursements for July	1919.....	\$ 310,383.52
Cash Disbursements for August	1919.....	315,002.58
Cash Disbursements for September	1919.....	1,098,576.55
Cash Disbursements for October	1919.....	1,090,335.53
Cash Disbursements for November	1919.....	1,209,668.31
Cash Disbursements for December	1919.....	1,208,213.03
Cash Disbursements for January	1920.....	1,016,746.71
Cash Disbursements for February	1920.....	1,039,462.17
Cash Disbursements for March	1920.....	1,174,927.46
Cash Disbursements for April	1920.....	1,050,139.49
Cash Disbursements for May	1920.....	1,168,736.03
Cash Disbursements for June	1920.....	904,827.38
Total Cash Disbursements		\$11,587,018.76
Conduct of the School Plant.....		8,427,534.30
Bonuses paid to Employees.....		447,913.88
Repayment of Loans made by City of Detroit.....		215,000.00
Advanced for War Savings Stamps.....		10,000.00
General Stores Purchased.....		201,489.18
High School Stores Purchased.....		97,502.06
Institute Fees.....		2,136.50
Evening High School Fees Refunded.....		20,241.94
Building Fund Disbursements		
Purchase of Land and Improvements to Site....	178,084.31	
Buildings under Construction.....	2,352,708.48	
Equipments (exclusive of books, charts & maps).....	245,856.83	
Equipments (books, charts and maps).....	4,573.36	
Improvements to Buildings.....	140,390.23	2,921,613.21
Total		12,343,431.07
Deduct Items included in Conduct of School Plant that are not		
Cash Disbursements.....	**	756,412.31
Total Cash Disbursements		\$11,587,018.76

**This amount consists of depreciation, etc. that is absorbed in the cost of the conduct of the school plant.

Table XLIX Conduct of School Plant**Recapitulation**

<i>Item</i>	<i>Amount</i>	<i>Percentage</i>
Business Administration	\$ 96,114.44	1.1%
Administrative Administration	469,666.20	4.5
Instructional Administration	6,235,132.66	70.4
Operation	947,447.61	10.6
Maintenance	206,441.23	2.3
Depreciation	522,666.00	5.9
Insurance	52,168.81	.6
Utilities	10,726.30	.1
Others	147,913.88	1.1
Total Cost of the Conduct of the School Plant	99,876,118.18	100.0%

Instruction Cost Detailed

Elementary Day School	\$1,163,430.11	66.0%
Intermediate Day Schools	210,170.70	3.6
High Day School	1,201,618.05	20.1
Colleges	141,801.08	2.3
Summer Schools	75,110.24	1.2
Elementary Evening Schools	0,111.81	.2
High Evening Schools	120,007.81	2.1
Wilkins High School of Commerce	87,044.32	.9
Cass Technical High School	101,780.54	3.1
Totals	\$1,943,142.65	100.0%

Operation of Buildings

Cass Technical High School	\$ 40,047
Central School for Supplies	4,10
Detroit Technical College	3,17
Wilkins High School of Commerce	3,01
Detroit College of Medicine and Surgery	3,00
Elementary Schools	8,504,841.50
Intermediate Schools	85,000.00
Metropolitan High Schools	250,000.00
Operation of Evening Schools	880,510.33
Operation of Department	1,038.65
Total operation cost	9,777,537.48

Table L—Statement of Per Capita Cost for the Year Ending
June 30, 1920

Schools	Teachings Cost	Adminis- trative School Cost	Total Instruction Cost	Operation	Maintenance	Business Adminis- tration	Education- al Adminis- tration	Bonuses	Total Cost	Average Mem- ber- ship
Elementary.....	\$3,827,879.62	\$335,559.82	\$4,163,439.44	\$569,032.98	\$600,743.84	\$76,566.31	\$249,272.44	\$379,033.93	\$6,068,088.96	96,119
Intermediate.....	196,144.08	23,032.68	219,176.76	35,662.21	14,796.41	1,902.26	6,193.10	9,833.43	287,564.17	2,439
Metropolitan High.....	1,011,486.95	243,061.70	1,254,548.65	230,006.61	81,676.13	9,701.57	31,584.83	47,826.22	1,675,344.01	12,171
Cass Technical High.....	143,103.17	46,677.37	191,780.54	49,947.23	7,593.08	856.03	2,786.90	4,409.74	237,433.52	1,134
Wilkins High School of Com- merce.....	48,716.70	8,327.62	57,044.32	3,916.20	3,558.18	475.57	1,548.28	2,234.87	68,777.42	615
Detroit Teachers College.....			59,680.14	3,129.73	2,367.93	285.34	928.97	1,340.92	67,733.03	325
Detroit Junior College.....			40,233.42			380.46	1,238.62	1,787.90	43,640.40	442
Detroit College of Medicine and Surgery.....			44,980.52	3,904.48	3,656.80	95.11	309.66	446.07	53,393.54	148
Evening Elementary.....			9,444.81	304.10		1,807.16	5,883.44		17,439.51	2,241
Evening High.....			129,367.81	734.55		3,043.63	9,908.96		143,084.95	3,777
Summer Schools.....			75,416.24						75,416.24	8,541
Operating Departments.....				698.92	16,708.46			939.88	18,347.26	
Miscellaneous.....									52,438.81	
Baths.....									46,726.36	
	\$5,229,330.52	\$656,659.19	\$6,245,142.65	\$947,337.01	\$731,109.83	\$95,113.44	\$306,655.20	\$447,913.88	\$8,875,448.18	127,952

Table LI—Cost of Instruction for the Year Ending
June 30, 1920

	Teaching Cost		Administrative Cost			Total Inst. Cost	Per Capita Cost of Salaries	Per Capita Cost of Supplies & Exp.	Total Per Capita Cost of Supplies & Exp.
	Teachers Salaries	Educational Supplies	Total Teaching Cost	Salaries	Supplies & Expenses	Total Admin. Cost			
Kindergarten, . . .	\$3,696,495.00	\$131,384.62	\$3,827,879.62	\$316,375.79	\$19,184.03	\$335,559.82	\$41.75	\$1.57	\$43.32
Elementary & Special									
Intermediate . . .	189,647.25	6,496.83	196,144.08	21,959.50	1,073.19	23,032.68	86.76	3.10	89.86
Metropolitan									
High.	983,190.85	28,296.10	1,011,486.95	236,683.77	6,377.93	243,061.70	100.24	2.83	103.07
Cass.	135,811.05	9,292.12	145,103.17	45,381.39	1,395.98	46,677.37	159.78	9.34	169.12
Wilkins.	47,140.85	1,575.85	48,716.70	7,936.90	390.72	8,327.62	89.56	3.19	92.75
College Units . . .	131,026.39	13,867.69	144,894.08	.....	.....	.....	143.20	15.15	158.35
Total.	\$5,183,311.39	\$190,913.21	\$5,229,330.52	\$628,337.35	\$28,321.94	\$656,659.19	\$621.29	\$35.18	\$656.47



WOODROW WILSON ELEMENTARY SCHOOL



AUDITORIUM—WILSON SCHOOL

1870-1871

1871-1872

1872-1873

1873-1874

1874-1875

1875-1876

1876-1877

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1902-1903

1903-1904

1904-1905

1905-1906

1906-1907

1907-1908

1908-1909

1909-1910

1910-1911

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SEVENTY-EIGHTH
ANNUAL REPORT

of the

Superintendent of Schools



Published by the Authority of the
Board of Education
City of Detroit
1921



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LETTER OF TRANSMITTAL

Aug. 1, 1921.

To the Honorable Board of Education,
City of Detroit.

I am submitting the Seventy-eighth Annual Report of the Detroit Public Schools for the school year ending June 30, 1921. This falls into the following divisions: Part I, Statement of Growth; Part II, Policy and Progress; Part III, Statistical Studies; Part IV, Organization; Part V, Buildings, and Part VI, Finance.

Very respectfully,

FRANK CODY,
Superintendent of Schools.

Report of the Superintendent

PART I—GROWTH

SCHOOL attendance tends to increase during periods of commercial inactivity or depression. The 1920-21 school year proved this fact. The reasons are quite obvious. During times of depression there is little tendency upon the part of families to move about, children who ordinarily find a place in industry at 14 or 16 years find no demand for their services and so remain at their books until opportunity again tempts them into employment.

In ordinary years the student peak comes in November, and from then until June, the tendency of the curve is downward without sharp breaks. Both 1919-1920 and 1920-1921 were unusual years. In the former the influenza epidemic at the opening of the second semester affected school membership; in 1920-21 the membership curve was normal until the end of the first semester. The first semester peak came in November. At the beginning of the second semester most of the eighth, ninth and tenth grade pupils who ordinarily leave for work remained and others who were no longer employed returned. This increase continued until April when the year's peak was reached with 125,911 children in membership.

September, 1920, found 19,414 pupils in part time sessions, 2,514 more than the preceding September. At the end of January this had been reduced 13,465 and in June the total fell below 12,000. This congested condition will be relieved during the 1921-22 school year.

These comparisons are shown in Diagram 1, Table I, on the following page.

School Membership

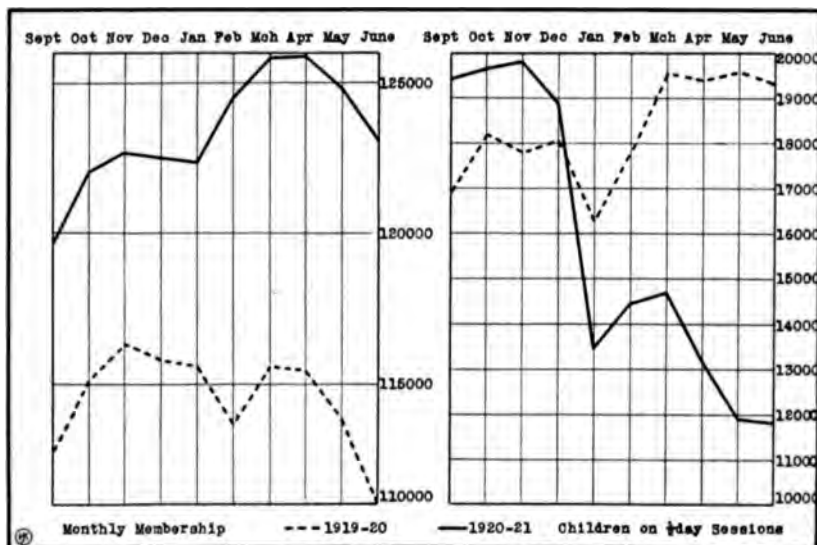


Diagram 1

Table I

Month	Member- ship 1919-20	Member- ship 1920-21	No. of Children on Half-day Sessions			
			1919-20	1920-21	Increase or Decrease	Per Cent of Increase or Decrease
September.....	112,806	119,688	16,900	19,414	+2514	+14.9
October.....	115,117	122,059	18,193	19,646	+1453	+ 8.0
November.....	116,284	122,690	17,795	19,819	+2024	+11.4
December.....	115,790	122,529	18,056	18,903	+ 847	+ 4.7
January.....	115,367	122,370	16,270	13,465	-2805	-17.2
February.....	113,699	124,514	17,809	14,449	-3360	-18.8
March.....	115,591	125,885	19,554	14,691	-4863	-24.8
April.....	115,444	125,911	19,408	13,175	-6233	-32.1
May.....	113,844	124,812	19,581	11,891	-7690	-39.3
June.....	110,019	123,155	19,338	11,811	-7527	-38.9

Registration of Pupils

The 1920-21 registration of different names shows an increase of 4,073 over the preceding year or 2.9%. The increase in membership was normal but the increase in the number of different names was smaller in proportion, due probably to the fact that the population was more stationary. The school census showed 237,592 names, an increase of 6.6% over 1919-20. This is shown in Diagram 2, Table II.

Census and Registration

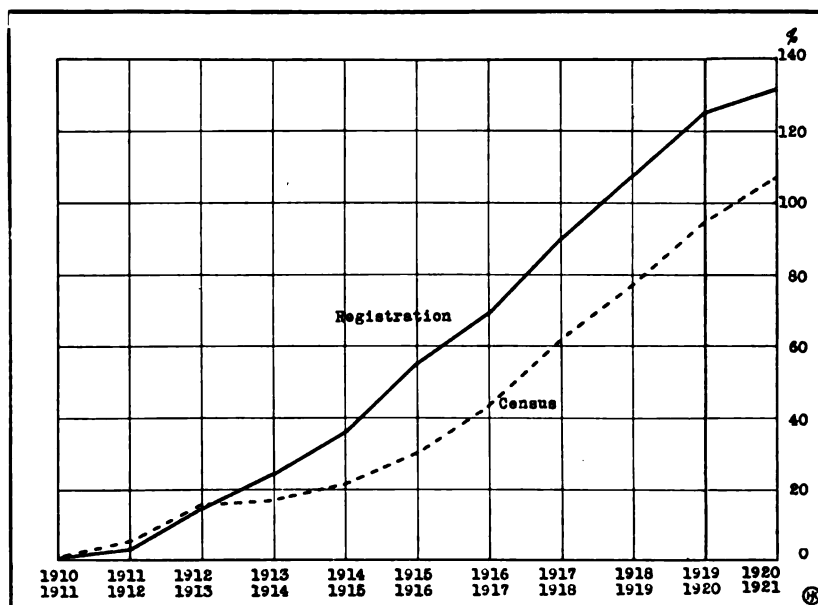


Diagram 2

Table II—Census and Registration Growth

Year Ending June	School Census	Increase	Percent Increase	School Regis- tration	Increase	Percent Increase
1911	114,448	4,458	4.	61,961	5,034	8.8
1912	119,599	5,151	4.5	63,547	1,586	2.5
1913	131,845	12,246	10.2	71,003	7,456	11.7
1914	133,155	1,310	.9	77,024	6,021	8.4
1915	138,805	5,630	4.2	84,280	7,256	9.4
1916	149,346	10,541	7.5	96,067	11,787	13.9
1917	164,532	15,186	10.1	104,737	8,670	9.
1918	185,254	20,722	12.5	117,527	12,790	12.2
1919	203,091	17,837	9.7	128,456	10,929	9.2
1920	222,789	19,698	9.7	139,604	11,148	8.7
1921	237,592	14,803	6.6	143,677	4,073	2.9
Total Increase over 1911		123,144	107.6		81,716	132

Teachers

The increase in the number of teaching positions was 313 or 8.3%, which corresponds with the increase in membership. The actual number of new regular teachers was 510, including 197 or 4.8% of replacements due to resignations. The number of men shows a proportionate increase. This appears in Diagram 3, Table III.

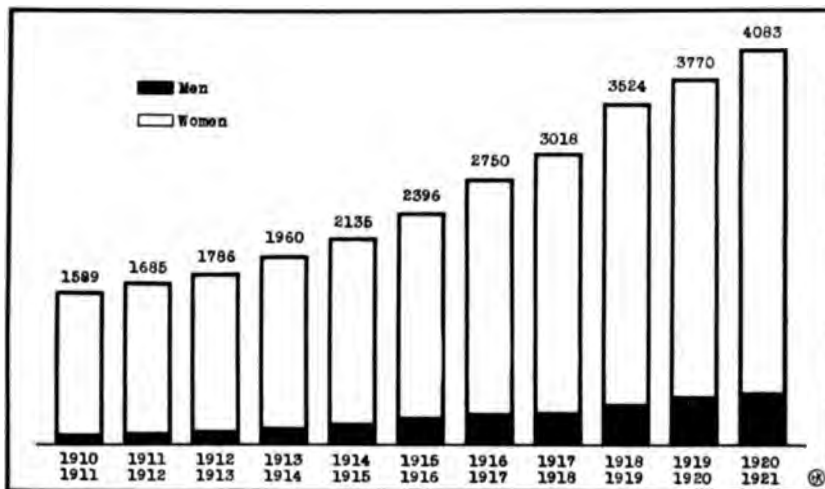


Diagram 3

Table III—Number of Teachers by Years*

Date	Men	Women	Total	Increase	Percent of Increase
1910-1911.....	125	1,464	1,589		
1911-1912.....	136	1,549	1,685	96	6.1
1912-1913.....	155	1,631	1,786	101	6.
1913-1914.....	193	1,767	1,960	174	9.8
1914-1915.....	239	1,896	2,135	175	8.9
1915-1916.....	293	2,103	2,396	261	12.2
1916-1917.....	338	2,412	2,750	354	14.8
1917-1918.....	347	2,671	3,018	268	9.8
1918-1919.....	433	3,091	3,524	506	16.8
1919-1920.....	500	3,270	3,770	246	6.9
1920-1921.....	540	3,543	4,083	313	8.3

*Exclusive of substitute teachers.

Size of Classes

The median size of the elementary class was 38.2 pupils; the intermediate, 25, and the high school, 24. The elementary schools still show 681 classes with more than 40 pupils. This will readjust itself when the 1920-21 building program becomes fully operative. The size of classes in both intermediate and high schools will be gradually increased until they approach the standard set. The distribution of classes by size is shown in Table IV.

Table IV—Size of Classes, Medians and Percentiles

	25 Percentile	Median	75 Percentile
Elementary.....	27.1	38.2	46.1
Intermediate.....	24.0	25.0	35.0
High.....	19.0	24.0	29.0

Appropriations

Table V shows the appropriations of the Board of Education for the last three years upon the basis of source of revenue.

Table V—Appropriations of the Board of Education

Item	1918-19	1919-20	1920-21
Net amount raised by tax for teacher's salaries.....(a)	4,307,599.93	4,248,868.00	8,726,442.73
Net amount raised by tax for maintenance and operation.....	1,349,219.47	1,634,632.96	2,139,651.70
Raised by tax for alteration not repairs.....	480,648.67	324,351.00	1,117,577.04
Allowed by bonds for new buildings and sites.....	3,172,000.00	2,472,100.00	17,701,442.70
Estimated receipts Primary money	1,036,406.00	1,144,724.00	1,472,410.00
Other Credits.....(b)	93,000.00	35,000.00	43,500.00
Total appropriation.....	10,438,874.07	9,859,675.96	31,201,024.17

(a) Of this amount \$67,000 was deducted and applied as a credit.

(b) Raised by Board of Education. Balances from previous year \$33,000.

School Buildings

The number of school buildings in use or under construction during 1920-21 was 205. Buildings under construction include one high, two intermediate, and five elementary schools, leaving a net number of 197 buildings of various types in operation during the school year. This is shown in Diagram 4 and Table VI.

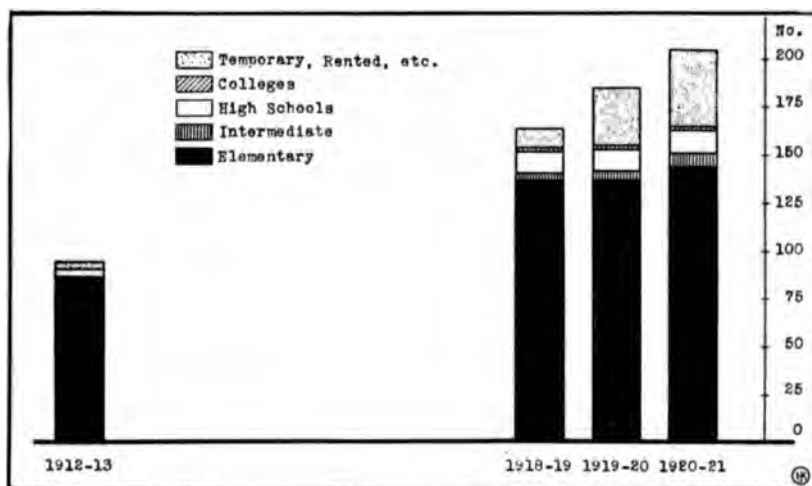


Diagram 4

Table VI—Number of School Buildings by Years

End of June	No. Elementary	No. Intermediate	No. High	No. Colleges	Rented Buildings	Portable Buildings	Settlements & Neighborhood Houses	Temporary Buildings	Open Air	Total No. Buildings
1896	59a	..	1	..	4	..	..	..	..	64
1912	87a	..	4	..	4	..	..	..	..	95
1919	137b	4	11c	2	..	7	3	..	..	164
1920	137d	5	11c	2	6e	15	3	5	1	185
1921	144g	7h	12f	2	12	15	4	7	2	205

- a. Includes two buildings also used as high departments.
- b. Includes Norvell, also used as an intermediate school; Monterey and Wabash used until May, 1919, and then sold.
- c. Includes Cass Tech. High Annex as a separate building.
- d. Includes Keating and Cooper Schools.
- e. Includes Parental Home and Edgewood School.
- f. Includes Southwestern High School, in course of construction.
- g. Includes Custer, Balch, Brady, Noble and Admiral Winterhalter Schools, in course of construction.
- h. Includes Barbour and Hutchins Intermediate Schools, in course of construction.

Salaries of Teachers

A survey of salary conditions throughout the country was made. Several of the more important findings are presented. The position of these teachers on the salary scale was ascertained¹ and is presented by salary divisions in Table VII.

Table VIIa—Kindergarten Teachers

The Detroit salaries are second only to Chicago in cities compared. The lower 25% are better paid than in other cities.

	First Quartile	Median	Third Quartile
Chicago.....	1475	1975	1975
Detroit.....	1700	1700	1800
Cleveland.....	1451	1607	1909
St. Louis.....	900	1500	1500
Philadelphia Average.....		888	

Table VIIb—Elementary Teachers

c Detroit ranks second to Chicago in salaries paid elementary teachers. The lower 25% are better paid but the middle and upper group fall below slightly.

	First Quartile	Median	Third Quartile
Chicago.....	1475	1975	1975
Detroit.....	1700	1800	1800
St. Louis.....	1500	1800	1800
Cleveland.....	1443	1680	1936
Philadelphia Average.....		1061	

Table VIIc—Intermediate Teachers

Cleveland, St. Louis and Detroit are practically even in this division.

	First Quartile	Median	Third Quartile
St. Louis.....	1900	2200	2400
Detroit.....	1900	2100	2300
Cleveland.....	1800	2029	2174
Philadelphia Average.....		1392	

Table VIId—High School Teachers

The lower 25% of Detroit high school teachers are very close to Cleveland and Chicago. In median salaries they are practically even with Chicago but the upper 25% fall below the other cities.

	First Quartile	Median	Third Quartile
Cleveland.....	2177	2566	2992
St. Louis.....	2400	2550	2850
Chicago.....	2183	2350	2616
Detroit.....	2000	2300	2450
Philadelphia Average.....		1931	

¹The Median (mid-point) or that point on the scale which divides the distribution exactly in half, having one half of the cases fall below and the other half above.

The First Quartile, or 25 percentile, or that point on the scale below which exactly one-fourth of these cases fall, and above which three-fourths of the cases fall.

The Third Quartile, or 75 percentile, or that point on the scale below which fall exactly three-fourths of the cases, and above which one-fourth of the cases fall.

Table VIIe—Elementary Principals

The differences here are largely those of building size. When the new building program is fully effective the Detroit salary groups will rise because the new additions to the school plant are generally large units.

	First Quartile	Median	Third Quartile
Chicago.....	3700	4250	4250
St. Louis.....	2950	4000	4000
Detroit.....	3200	3200	3600
Cleveland.....	2541	2746	2855
Philadelphia Average.....		2605	

Table VIIf—Intermediate Principals

Detroit intermediate principals are best paid group. St. Louis includes only one case.

	First Quartile	Median	Third Quartile
St. Louis.....	4100	4100	4100
Detroit.....	3600	3950	4000
Cleveland.....	3225	3300	3470
Philadelphia Average.....		1392	

Table VIIg—High Principals

Detroit and St. Louis top the list of cities compared in salaries of high school principals. New York is slightly higher than either.

	First Quartile	Median	Third Quartile
Detroit.....	5000	5000	5000
St. Louis.....	5000	5000	5000
Chicago.....	4800	5000	5100
Cleveland.....	4200	4400	4500
Philadelphia Average.....		4657	

Teacher Turnover

The effects of the new salary schedule, together with industrial conditions, are reflected in the resignations of teachers.

During 1919-20 before salary adjustments became effective, 10% of the men and 10.4% of the women teachers left the service. In 1920-21 only 197 resigned, 4.3% being men and 4.9% women. This is below the general average of 5.6%. Of those who left the service, 74 gave no reason; 55 were to be married; 24 bettered their positions; 14 moved from the city; 13 left on account of health; 11 changed professions, and 7 retired on account of age.

Of this total, 114 had three years or less experience. The teacher turnover is shown on the following page in Diagram Table VIII.

Teacher Turnover

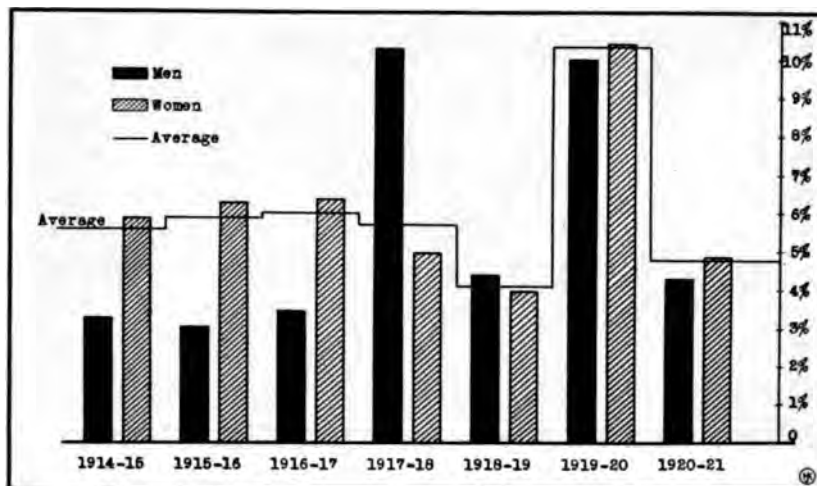


Diagram 5

Table VIII—Resignation of Teachers by Years

Year	Resignations			Total No. of Teachers			Percent of Resignations		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
1914-15	8	111	119	239	1896	2135	3.3	5.9	5.6
1915-16	9	133	142	293	2103	2396	3.1	6.3	5.9
1916-17	12	148	160	338	2312	2650	3.5	6.4	6.0
1917-18	36	135	171	347	2671	3018	10.3	5.0	5.7
1918-19	19	125	144	433	3130	3563	4.4	4.0	4.1
1919-20	50	338	388	498	3252	3750	10.0	10.4	10.3
1920-21	23	174	197	540	3543	4083	4.3	4.9	4.8

Types of School Organization

The general character of the school organizations did not change to any marked degree. They will not do so until the intermediate school program becomes fully operative. There were 23 types operative. This is shown in Table IX.

Table IX—Types of School Organization, 1920-21

Type	No.	Per Cent	Type	No.	Per Cent
1-5	23	42.0	8-12	2	1.3
6-7	15	15.3	1-5	2	1.3
8-12	10	10.2	K-1	2	1.3
1-3	5	5.1	K-2	1	0.6
4	2	2.0	9-14	1	0.6
5	1	1.0	1-3	1	0.6
6	1	1.0	K-3	1	0.6
7	1	1.0	2-8	1	0.6
8	1	1.0	3-8	1	0.6
9	1	1.0	2, 4, 6	1	0.6
10	1	1.0	7	1	0.6

d. The changing of the functions of the supervisor of attendance from administrative to supervisory control.

e. The development of the central office to consist of supervisor, two district attendance officers, and an officer for down town work, who will handle such cases referred to them by district principals as require legal or police action.

3. The social and academic importance of attractive school interiors and pleasant exteriors with plenty of room for playgrounds, lawn, shrubs and flowers has been recognized, and divisions of Interior Design and Landscape Gardening organized within the Department of Architectural Engineering.

PROGRESS

The following abbreviated reports show changes and progress made during the 1920-21 school year.

Administration

1. A detailed study of the present organization has been made with the purpose of developing an ultimate organization based upon the best experiences of Detroit and other cities and correcting present local inadequacies.

2. The 1919-20 experiment in administrative control on the east side proved so successful that the district principal system was adopted as a general policy by the Board of Education and extended to the entire elementary division.

3. A socialized curriculum was developed for intermediate schools and buildings designed to meet these needs. Two of these, the Barbour and the Hutchins, are in the process of construction.

4. A new standard plan for elementary school buildings has been adopted. This is discussed in detail in another section.

5. The largest budget for new buildings and grounds ever granted to the Board of Education became available July 1, 1920, \$17,750,588. The Common Council made further advances during the year because of price advances and other conditions of \$3,379,664, making available a total of \$21,130,252. Of this amount \$13,172,611 had been contracted for by June 30, 1921.

6. Further developments in cost accounting were made by the installation of a simple system whereby each teacher and principal apportion their monthly salaries by function and by course of study.

7. Slight changes in the methods of checking requisitions, purchasing supplies and equipment, have been made enabling the Board of Education to pay claims and accounts promptly and to derive the benefit of cash discounts.

8. The capacity of the Supply Department was increased to permit the storage of a year's supply, and new delivery schedule devised that added greatly to the efficiency in delivering supplies.

9. Research studies made and published as special bulletins include Age-Grade and Nationality Survey, Analysis of the 1921-22 Budget, and a Preliminary Study of Standards of Growth in the Public Schools.

10. The activities of the Psychological Clinic have been extended and group tests given to all children entering the 1B grade, and the children of greatest retardation as shown by the Age-Grade Survey. Individual tests were given to (1) over age children with low group test scores, (2) backward children, (3) incorrigible children, and (4) children entering the school for the deaf.

11. The rules and regulations governing janitors and engineers have been revised.

12. A continuing tenure for teachers, replacing the annual contract, was adopted, with one year of probationary teaching required before a continuing contract is granted. Teachers who remain on probation for two years are automatically dropped.

13. The establishment of a Vocational Bureau was authorized. This bureau will have charge of (1) vocational information, (2) vocational guidance, and (3) working permits.

14. The attendance department was reorganized in accordance with the new policy and administrative control of the attendance officers was given to the district principals. The supervisor of attendance retained supervisory powers and control of the continuing census.

15. The organization of Parent-Teacher Associations was actively encouraged.

16. A salary survey of cities of comparative size was made and showed Detroit to rank third, generally, in schedule range.

17. A landscape survey of all schools and grounds was made last fall, classifying them according to the stage of development. This is given in detail in section V of this report.

18. In September, 1920, there were 19,414 children on half day sessions. At the end of May, 1921, this number was reduced to 11,891, a decrease of 7,523 pupils. The full effect of the 1920-21 building program will be felt in February, 1922.

19. Surveys of factories and stores were made listing jobs for the mentally and physically handicapped.

20. All land and building property records were brought up to date on uniform small scale drawings. These show the exact location of buildings on land owned and will greatly facilitate the rapidity with which preliminary plans for necessary additions may be worked out.

21. A department of educational expenditures was established.

Supervision

Health Education

1. Leadership of children in setting up exercises and general responsibility increased and method for self-appraisal developed.

2. Greater emphasis was placed on informal work and free play.

3. Charts of posture tests of all graduating classes were made showing degree of improvement.

4. Twenty-one demonstrations were held with an average of 350 children in each.

5. A sportsmanship campaign was started.

6. More than 7,000 boys and girls took part in the annual field day at Belle Isle.

7. Natural dancing has been extended in the first eight grades.

8. Skating and tennis were introduced as elementary school activities.

9. Supervision of intermediate and high schools has been combined, resulting in better coordination.

10. High schools were established as one working unit in athletics rather than as separate and individual schools.

11. Investigations have been carried on to determine the ratio of illness between pupils in health education classes and those not so enrolled in intermediate and high schools.

12. Scout activities have been definitely coordinated with the intermediate school program.

13. Course of Study in Safety Education was introduced as part of the regular curriculum in all elementary schools.

14. A system of following up accidents to pupils has been worked out in conjunction with the Police Department .

15. Traffic surveys, showing the dangers children are subject to, have been made by the pupils of several buildings and the results incorporated with their regular work on Safety Education.

Language Education

7 1. The work in English has been reorganized and each assistant supervisor now has charge of a particular phase of the subject.

2. Teachers have received further training on the basis of the Trabue scale. As this training proceeds, results of tests will be more reliable.

3. Experimental work in spelling has been carried on to formulate plans by which improvements in methods might be effected on the basis of (1) new conception of duties of teacher, (2) means of adjustment of work to individuals by individuals, (3) emphasis on general habits and methods of work. By this method of diagnosis and tabulations, every pupil has been able to determine his type of difficulty and to study more intelligently.

4. Experiments in literary appreciation were made for the purpose of constructing a scale of appreciation.

5. Experiments were made in silent reading to develop a scale to aid in determining levels of ability of pupils.

6. Experiments have been carried on to formulate a scale for judging oral composition to determine an individual's points of strength and weakness in order that specific remedial training may be given.

7. The Standard Practice Tests in Handwriting were used generally throughout the city for the first time. After two years of experimentation, first with a group of twenty-six teachers, then with forty-four schools, the results obtained with the use of the tests, were so much in advance of the old method, that it seemed advisable to use the new method in all the schools.

The results showed an average gain of 48.7 per cent of possible gain which is higher than has been made in previous semesters.

8. Last year an experiment in supervision was tried on the east side of the city. The principals were trained to observe the outstanding points in a writing lesson so they could supervise the work in their own building to the extent of determining which teachers were most in need of help.

The supervisor and assistants visited only those schools where the principals made requests. The results from this type of supervision were greater than from those schools which were supervised in the old way. The new type of supervision used in all the schools this year was a factor in the gains made as well as the new method of instruction.

9. A group of teachers are working upon a method of procedure in writing for a B2 class.

The writing is not taken as a special subject, but is a part of the spelling lesson. As soon as a child learned to spell a word, he was to teach himself to write it. The outstanding purpose of the procedure was to equip the child with a means of attacking a lesson as well as to learn to spell and write well. A small group of teachers worked with this method last term and the results showed a greater gain in spelling as well as writing. This group was compared with a group who were teaching the old type method of instruction.

10. A film on handwriting, which gives the theory upon which the Practice Tests are based, and a second film, which shows the theory put into practice in a writing lesson has been made. A group of teachers are going to be trained through the use of this film.

Mathematics and Science Education

1. The Department of Arithmetic was organized under a supervisor and its relationship to other departments carefully worked out.

2. Experiments on the project method basis were carried on in several schools with different grades.

3. A Thrift week program was developed, reaching 30,000 children.

4. Regular standard tests given to children in elementary schools. These showed a definite increase of 12% for the first semester over the spring semester, 1920.

Social Sciences

- 7 1. In addition to the general use of stereopticon slides in the elementary schools, moving pictures were shown weekly in 22 schools by the Visual Department.
2. More than 1,500 collections were loaned by the Children's Museum to public schools and other educational institutions, a growth of 275%.
3. Tentative plans and standard equipment for science rooms in elementary schools have been prepared by the geography department.

Vocational Education

1. Fifty-six per cent of the teachers in this department have been enrolled in extension courses by Teachers College and the University of Michigan.
2. Production activities have been encouraged and developed in the school shops.
3. Equipment, layouts and various details of all shops and household arts rooms in platoon and intermediate schools have been standardized.
4. Pupils in mechanical drawing classes have increased from 1,913 to 6,726; in manual training shop work from 2,857 to 17,457; in domestic science classes from 10,168 to 10,570.
5. Courses of study were revised to meet the needs of intermediate schools.
6. A scale has been developed for free hand lettering.
7. Toys and boy scout equipment were made in the manual training department.
8. Bookbinding and book repair groups were organized in the fifth grade.
9. Toys, garments and costumes for plays were made by domestic art classes for social agencies and for school work.

Fine Arts Education

ART

1. A new course of study in art for the grades and intermediate schools has been prepared.
2. Posters were drawn for Better Speech week, Good Sportsmanship, and for the Health contest of the Board of Health. Easter cards were made for the Red Cross.

MUSIC

1. Organization of song material, cantatas, operettas, programs for auditorium and assembly singing stressed.
2. Careful grading and grouping of first grade children resulted in better tone quality and in correction of more monotones.
3. Tests were given on musical terms and recognition of melodies.
4. New course of study is being constructed. This will aim to meet present day demands for more music from the standpoint of appreciation, correlation with other subjects, school assembly and community needs, with a continued study and attention to the technical problems involved.
5. All orchestral instruments were taught at one school. High school orchestras in general have greatly improved in numbers, interest and quality of work.
6. Operas given by high schools include "Greek Slave," "Ruddigore," "Maid and the Middy," and the "Sorcerer."
7. Community singing has been introduced into all high schools.

Elementary Education

1. The schools were divided into 14 districts, each in charge of a district principal, for more effective administration.
2. The district principals have been responsible for the administration of all material prepared by the supervisors, whose functions since February, 1920, have been purely supervisory in character.
3. The 1B pupils were classified into x, y, z groups upon the basis of mental tests given under the direction of the Department of Special Education.
4. A building survey made in September and January resulted in the elimination of 91 half day sessions and the placing of 3,008 pupils on full time by rearranging district boundary lines and transferring 2,808 children.
5. A survey of failures was made. For the semester ending June, 1920, the percentage of failures, excluding special classes and kindergarten, was 14.7%. Remedial measures were taken and this situation laid before the principals. A tabulation of failures in the January, 1921, semester showed that this had been reduced to 8.4%.

6. The issuing of pupil's report cards was standardized and a uniform system of card marking established.

7. The administrative control of attendance officers was assigned to the district principals and one officer attached to each district building.

8. The weight, height, age, grade and nationality records were secured for each child in the elementary schools from which to develop standards of nutrition and growth.

9. The clearing rooms for incorrigible children, established by the department of Special Education, were administered by the district principals .

10. Certain forms and reports were standardized in the interests of greater uniformity and ease in handling.

11. Organization of platoon schools has proceeded in accordance with the program adopted by the Board of Education in 1919. A platoon school department in charge of a district principal was established to give direct attention to the organization and development of the platoon organization in new schools and to the transformation of established schools from the regular to the platoon type.

12. Marked progress has been made during the year in the standardization of the platoon organization and program, and numerous research studies have been carried on bearing upon the instructional results, costs of instruction, costs of buildings, and per cent of failures in platoon schools as compared with a comparable group of schools of the regular type.

13. During the year three new schools, planned definitely to house the platoon organization, have been completed. These buildings are an exemplification of the latest thought in school architecture and represent a distinct advance because the program of the organization was first formulated and a building constructed in which this program could function effectively. The total number of platoon schools in June, 1921, is 29. With the completion of the buildings and additions now under construction the number will be 48 by February, 1922.

14. The development of the curriculum of the platoon schools has progressed rapidly. The library as a co-operative undertaking on the part of the schools and the public library has been made a new unit in the elementary organization. The elementary courses formerly designated as art and manual train-

ing have been combined and placed in charge of the Manual Arts Department under the title of Applied Art.

Special Education

Fifteen clearing rooms were established to which incorrigible children were assigned while awaiting mental and physical examinations before final disposition.

Education of the Anemic

1. One new two-room school was added.
2. More attention was paid to co-operation with the home that the methods of rest and feeding might be carried over.
3. Each entering child was X-rayed to show the existing physical condition.

Education of the Blind

1. The registration increased from 72 to 88.
2. Spelling tests written in Braille by blind children along with the regular grade were given with good results.

Education of the Crippled

1. The development of the clinic for physical therapeutics permitted the regular treatment of 25 cases where correction was possible.
2. The enlargement of the school plant by addition of class rooms, auditorium, gymnasium and roof play courts, doubled the capacity.

Correction of Defective Speech

1. The registration increased from 1,267 to 1,433; teachers from 13 to 18, and centers from 33 to 45.
2. Corrections made amounted to 215.
3. Experimentation in diet was made and the conclusion reached was that the type of food eaten had a tendency to increase lack of emotional control. The diet deficiencies were in milk, cocoa and vegetables.
4. Individual graphs showing speech improvement were made in September and improvement tabulated every two months.
5. Gray's Oral Reading Tests were used to determine how far a pupil could read without speech trouble.

Education of the Deaf

1. A scale, based upon experimentation, to determine the degrees of hearing was developed. This survey covered two points (a) the measurement of the degree of hearing, (b) the reaction to training of residual hearing. The following classifications were used: (1) Totally deaf; (2) conscious of sound but cannot imitate; (3) imitative sound perception; (4) imitative speech; (5) hard of hearing, and (6) apparent normal hearing but no speech.

2. By daily systematic exercises consisting of simple vowel sounds, words, and eventually short sentences spoken in the ear, pupils may pass from groups three to four or five.

Education of Subnormal Children

1. Courses of study for subnormal children are in the process of development.

2. The policy of centralizing Special B classes was started with a boy's center at the Norvell.

3. Studies in standard equipment and room space were made for each type of class.

Special Preparatory Classes

1. Registration in these classes was 545.

2. Border line cases in these groups were classified as Special Preparatory B type.

Special Advanced Classes

1. Three centers with a registration of 211 have been in operation.

2. The selection of children to be tested for these groups is made from the accelerated 6A pupils as shown by the Age-Grade study, 62 of 500 qualifying.

Classes for Incurrigibles

1. The room spirit has improved and discipline made less difficult.

2. The academic progress of this room has been slightly better.

3. Truancy has been reduced.

Evening Schools and Americanization Classes

1. Classes were located as follows: In ten high schools, six to eight elementary schools, three settlement houses and community centers, four industrial concerns, and one prison.

2. High school classes met twice each week. The schools were open four nights each week over a period of twenty-nine weeks. The last technical high school covered thirty-five weeks. Elementary classes met three times each week for periods varying from twenty to thirty weeks; most classes meeting for twenty-nine weeks.

3. Administration was centered in a Supervisor of Evening High School Classes and a Supervisor of Grade and Americanization classes. Attached to the elementary department was a specialist in methods of teaching English to foreigners who supervised teachers' methods and also directed the work with foreign women.

4. No change was made in high school methods or administration, except that all schools were placed on a budget basis. This policy will be continued.

5. In the elementary department seventh and eighth grades were placed on the departmental plan, the teaching of English to foreigners was standardized and systematized by training the teaching force through required attendance at special classes in methods and by supervision of their class room work; a revision of text material was begun with the aim of conforming material to methods and of simplifying the entire text book situation; a closer co-operation with the naturalization authorities in the work of citizenship classes was effected.

Intermediate Schools

1. The intermediate school program as adopted a year ago has been carried forward as rapidly as possible. A curriculum and a working organization have been planned.

2. Two buildings which will be unexcelled in their completeness are under construction.

3. Plans for three additional buildings are ready and the construction of these only awaits the acquisition of the land through condemnation proceedings.

4. An appropriation for an additional intermediate school is included in the 1921-22 budget and its erection will be provided for immediately.

5. A supervisor of intermediate schools has been appointed who will be responsible for all matters of detail relating to the development of these new schools.

6. Three of the four intermediate schools already in existence have been reorganized on the basis of the program planned for the new schools.

High Schools

1. During the year the plans for the new Southwestern high school were completed and the erection of the building started. This school will be organized on lines approximating those of the intermediate school with emphasis on the health program and the continuous use of the auditorium. The "home room" plan of organization will replace the "house plan" in vogue in the other cosmopolitan high schools.

2. Plans for the new high school to be erected on LaSalle Garden site, funds for which were secured a year ago, are still in preparation. The erection of this building awaits the ultimate plans for a complete educational center on this site including in addition to the high school, an intermediate school, an elementary school, college buildings, and possibly a library.

3. No marked progress in reorganization of the high schools has been made during the year, although several committees have produced revised outlines and syllabi on several subjects.

Technical Education

1. The contracts for the completion of the new Cass technical school were let.

2. The courses in Auto Mechanics have been strengthened by the completion of the starting and ignition, chassis and transmission and garage laboratories.

3. The music department has been developed and includes instruction in the following types of organized music; symphony orchestra, military band, theatre orchestra, string quartet, and piano.

First year courses have been reorganized by the building department for pattern making. The chemistry department has more laboratory capacity. The physical education department has increased to 75 girls. The school has a three day week. The registered students are 1,000.

8. Instruction in the use of calculating, bookkeeping machines and the Ediphone has been added to the curriculum.

9. The evening classes in commerce cared for 900 students, with large classes in salesmanship, commercial law, advanced accounting and calculating machines.

Vocational Education

1. Compulsory continuation schools for employed minors were established in the Detroit public schools in September, 1917, in accordance with Act 285 of the Public Acts of 1909 as amended by Act 255 of the Public Acts of 1915, and Act 280 of the Public Acts of 1917, Sections 9, 10, 11.

2. The average membership in compulsory continuation has been:

1917-18.....1,115

1918-19.....1,249

1919-20.....1,100

1920-21.....1,565

3. The James Law, providing for attendance of employed minors up to 18 years of age became partially effective September 1, 1920. The average membership under this law has been as follows: Sept., 139; Oct., 309; Nov., 467; Dec., 603; Jan., 731; Feb., 868; March, 1,024; April, 1,116; May, 1,191; June, 1264.

4. Rehabilitation classes for soldiers have been conducted with 645 in registration.

5. Vocational classes, under the Smith-Hughes law, have been held in all of the evening high schools.

Detroit Teachers College

1. A large number of new students were secured, where a very much smaller entering class was expected.

2. The standards of scholarship and work were raised by organizing definite courses of study with reduced electives, putting into effect a more definite marking system, and adding several new courses, measurement, administration, etc.

3. Emphasis in instruction upon socialized and vocational work was increased. Developed trips and excursions to industrial plants, social agencies, and educational institutions.



High School Publications

PART III—STATISTICAL STUDIES

Uniform Child Accounting Terminology

At the April meeting of the Inter-City Conference, composed of superintendents of nine of the larger cities, child accounting terminology was standardized as the first step toward keeping of uniform and comparable educational records in the larger cities. This movement will gradually extend to the smaller cities and will eventually result in standard records and universal transfers throughout the country.

The striking change is in the matter of eliminating temporary lefts, in order to secure a true attendance curve. St. Louis, New York and Detroit were the pioneer cities in this movement. The State of New Jersey has been operating under similar rules for a number of years. Chicago and Cleveland have been contemplating the change for some time and the other cities in the conference are ready to change.

This action eliminates one of the weakest points in educational records, the development of a false attendance curve by eliminating absent children from membership. The newer method will give a true curve and make research into causes of absence possible.

Registration or Enrollment

Registration or enrollment shall designate the first entry of a child in the public school system during the current semester, term or quarter, and shall be recorded at the first session the child is in school. Registration is an increasing number which cannot be diminished.

Received By Transfer

Pupils may be received by transfer from schools within the city, (or if a county, state or other unit of organization exists, from schools within the territory.) These shall not be added to registration.

Transfers and Losses (Lefts)

This item shall include transfers and losses to other educational institutions or permanent withdrawals from the system.

Permanent withdrawals shall include all pupils discharged to institutions, discharged by reason of employment permit, discharged on account of marriage, or on account of death, all discharges of over and under legal age, discharges by high school graduation, discharges by school corporation, permanent expulsion of pupils on account of physical or mental incompetency.

A pupil is to be considered as a member of a school until he is known to have been permanently discharged by reason of death, removal from the district, or been discharged as a result of having fulfilled the requirements of the compulsory education laws. It is understood there shall be no temporary withdrawals.

Membership

(Enrollment at date, Number Belonging or School Register)

Membership shall be registration or enrollment plus receipts by transfers minus transfers and losses (lefts).

Total Enrollment Or Original Registrations

Total enrollment shall include every pupil who has been in attendance at any time during the year, counted only in and for the school of original registration.

Average Membership

(Average Number Belonging or Average Daily Register)

Average membership shall be the aggregate of the daily membership for the term, semester, quarter or other period divided by the actual number of days school was in session.

Average Daily Attendance

Shall be the aggregate of the daily attendance for the semester, term, quarter, or other period divided by the actual number of days school was in session.

Percent of Attendance

This item shall be secured by dividing average attendance by average membership.

Student Hours

A student hour may be defined as a pupil instructed for sixty minutes. It may be secured in the following manner: daily attendance times length of instruction period in clock hours.

Per Pupil Costs

Pupil costs shall be determined upon three bases: (1) average membership; (2) average daily attendance; (3) in terms of student hours.

It is understood that the practice of computing costs upon total enrollment or registration is to be discouraged for the reason that this figure included pupils who may have been in attendance a very short time during the term or semester. Such computations are, therefore, fallacious and misleading. It is further recommended that costs be reckoned on average daily attendance, and in terms of student hours rather than membership.

MEMBERSHIP AND PERCENT OF ATTENDANCE

1919-20 and 1920-21

Kindergarten

The membership peak is again reached at the end of the first semester. June differs in membership from September by 1,114, as against 1,740 the year before.

Attendance during the second semester is considerably higher than during 1919-20. The highest attendance is in September, the lowest in January, a difference of 11.1%.

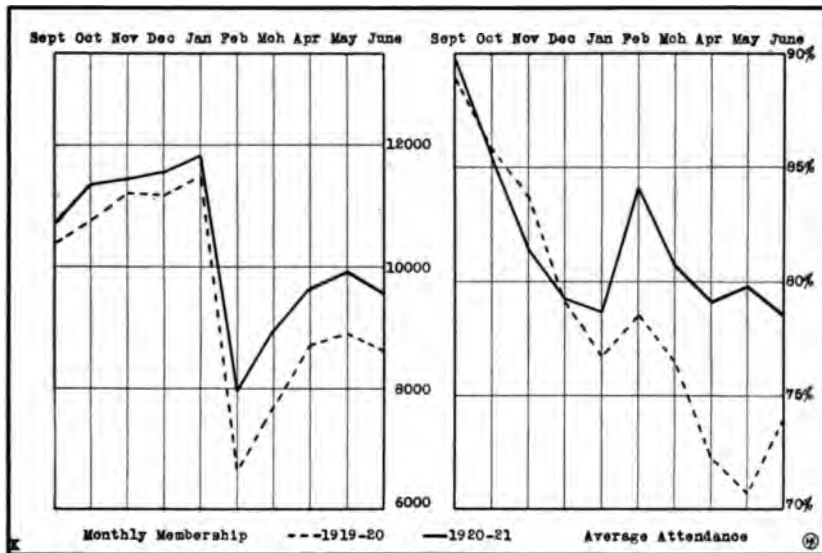


Diagram 7

Table XII—Kindergarten Membership and Attendance

Month	1919-20		1920-21	
	Membership	Percent Attendance	Membership	Percent Attendance
September.....	10,370	88.9	10,697	89.8
October.....	10,750	85.8	11,354	85.7
November.....	11,197	83.7	11,447	81.4
December.....	11,185	79.1	11,553	79.2
January.....	11,478	76.7	11,837	78.7
February.....	6,662	78.5	7,944	84.1
March.....	7,722	76.5	8,953	80.7
April.....	8,725	72.3	9,639	79.1
May.....	8,891	70.7	9,841	79.8
June.....	8,630	73.9	9,583	78.6

First Grade

The membership curve follows the previous year's closely with an increase of 1,101 at the beginning of the school year.

Attendance shows a marked increase, especially in the second semester. The difference between the highest and lowest per cent of attendance this year is 6.5%, as compared with 9.1% last year.

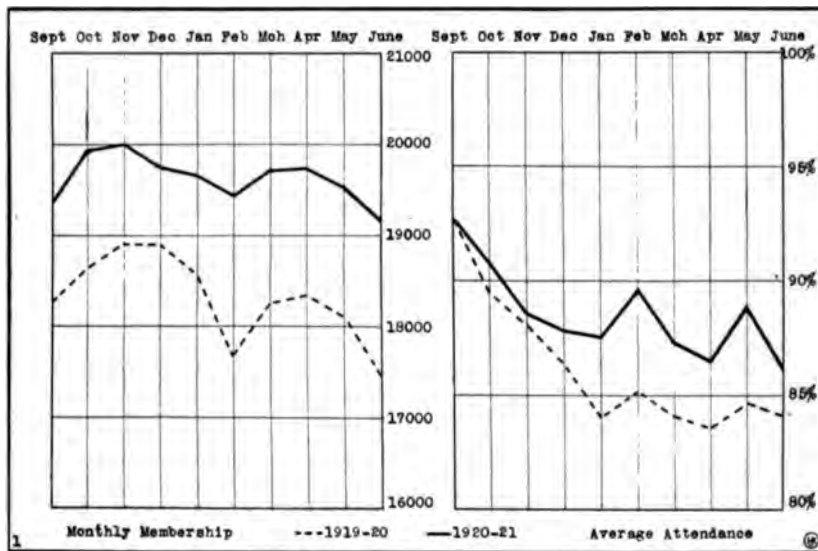


Diagram 8

Table XIII—First Grade Membership and Attendance

Month	1919-20		1920-21	
	Membership	Percent Attendance	Membership	Percent Attendance
September.....	18,270	92.7	19,371	92.7
October.....	18,636	89.5	19,956	90.7
November.....	18,905	88.1	20,002	88.5
December.....	18,888	86.4	19,745	87.8
January.....	18,555	84.1	19,658	87.5
February.....	17,663	85.2	19,431	89.6
March.....	18,242	84.1	19,704	87.3
April.....	18,334	83.6	19,739	86.5
May.....	18,101	84.7	19,525	88.8
June.....	17,446	84.1	19,153	86.2

Second Grade

In this grade the peak of the membership is reached at the beginning of the second semester, the largest difference over last year being 1,219 at the end of June.

Attendance is somewhat lower at the end of September, but higher throughout all other months. The variation is from 94.1% to 90.2%, a difference of 3.9% as compared with 7.3% last year.

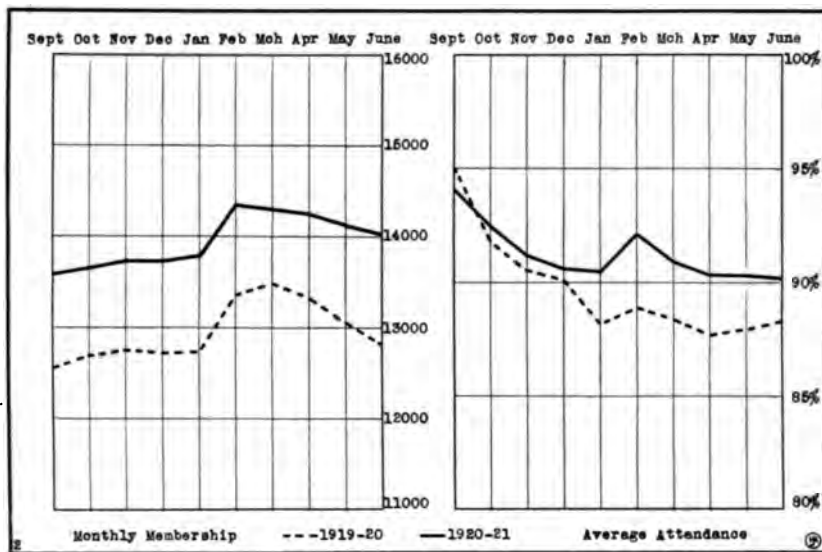


Diagram 9

Table XIV—Second Grade Membership and Attendance

Month	1919-20		1920-21	
	Membership	Percent Attendance	Membership	Percent Attendance
September.....	12,545	95.0	13,687	94.1
October.....	12,692	91.8	13,660	92.5
November.....	12,760	90.5	13,730	91.2
December.....	12,728	90.1	13,726	90.6
January.....	12,751	88.2	13,775	90.5
February.....	13,364	88.9	14,342	92.1
March.....	13,489	88.4	14,296	91.0
April.....	13,317	87.7	14,244	90.3
May.....	13,054	87.9	14,127	90.3
June.....	12,814	88.3	14,033	90.2

Third Grade

The membership at the end of this year is 392 higher than at the beginning.

Attendance shows a difference of 3% between September and May, the extremes in per cent of attendance.

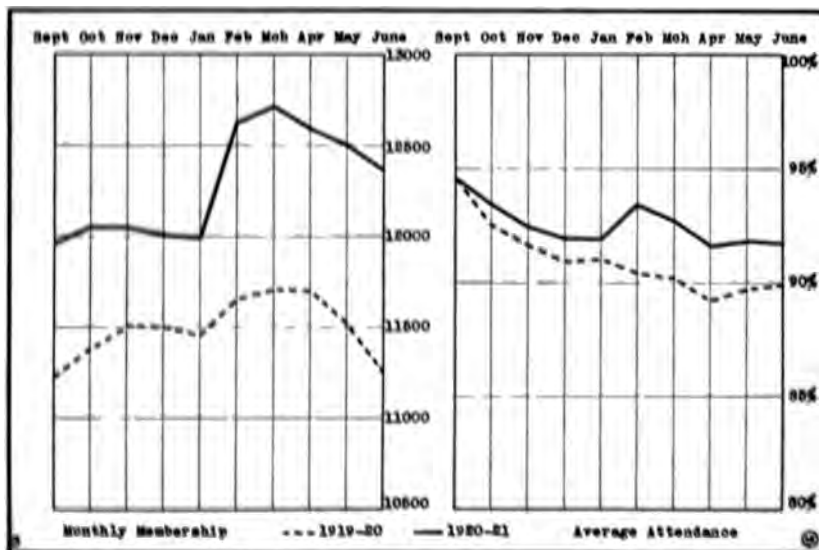


Diagram 10

Table XV - Third Grade Membership and Attendance

Month	1919-20		1920-21	
	Membership	Percent Attendance	Membership	Percent Attendance
September.....	11,220	94.6	11,967	94.8
October.....	11,376	92.5	12,049	93.4
November.....	11,502	91.6	12,045	92.4
December.....	11,497	90.9	12,008	91.9
January.....	11,456	91.1	11,993	91.9
February.....	11,648	90.4	12,624	93.4
March.....	11,709	90.2	12,706	93.4
April.....	11,689	89.2	12,581	93.4
May.....	11,519	89.7	12,504	91.9
June.....	11,249	89.9	12,359	91.9

Fifth Grade

The membership in this grade is the only one showing a decrease over the previous year, a difference of 797 at the beginning and 125 at the end of the school year.

Attendance, with the exception of September, is above that of 1919-20.

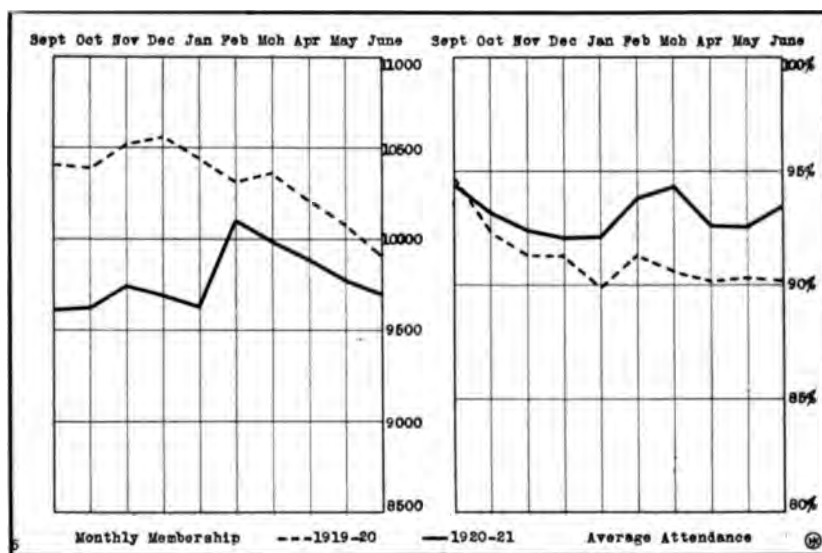


Diagram 12

Table XVII—Fifth Grade Membership and Attendance

Month	1919-20		1920-21	
	Membership	Percent Attendance	Membership	Percent Attendance
September.....	10,407	94.8	9,610	94.4
October.....	10,391	92.3	9,620	93.2
November.....	10,521	91.3	9,736	92.4
December.....	10,558	91.3	9,692	92.1
January.....	10,436	89.9	9,621	92.1
February.....	10,316	91.3	10,096	93.8
March.....	10,360	90.6	9,985	94.3
April.....	10,210	90.2	9,883	92.6
May.....	10,080	90.3	9,768	92.5
June.....	9,912	90.2	9,687	93.4

Sixth Grade

Membership shows a parallel gain throughout all months of the year.

The curve for attendance is smoother than last year's, with a distinct rally at the beginning of the second semester.

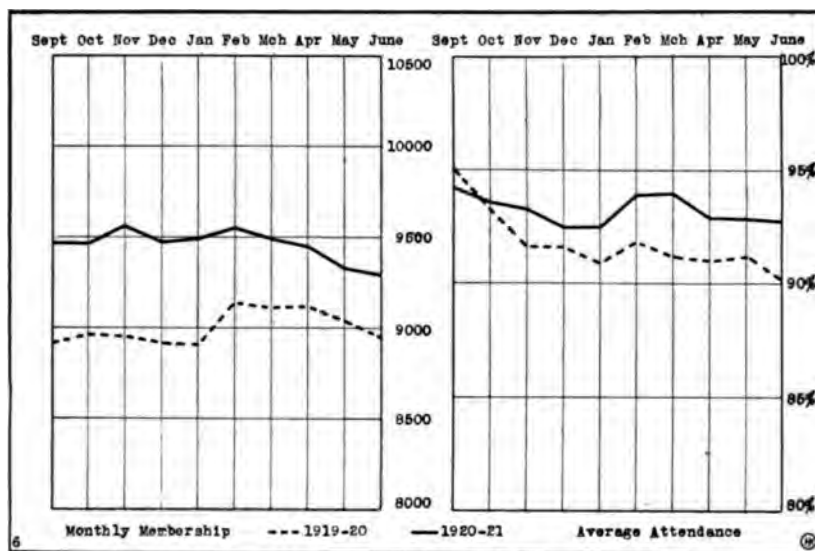


Diagram 13

Table XVIII—Sixth Grade Membership and Attendance

Month	1919-20		1920-21	
	Membership	Percent Attendance	Membership	Percent Attendance
September.....	8,830	95.	9,470	94.2
October.....	8,929	93.2	9,467	93.6
November.....	8,898	91.6	9,564	93.
December.....	8,833	91.6	9,476	92.5
January.....	8,823	90.9	9,493	92.5
February.....	9,279	91.8	9,553	93.9
March.....	9,222	91.2	9,492	94.
April.....	9,233	91.	9,452	92.9
May.....	9,077	91.2	9,326	92.9
June.....	8,909	90.2	9,295	92.8

Seventh Grade

Membership follows largely last year's curve.

Attendance is consistently higher than during 1919-20, except during September.

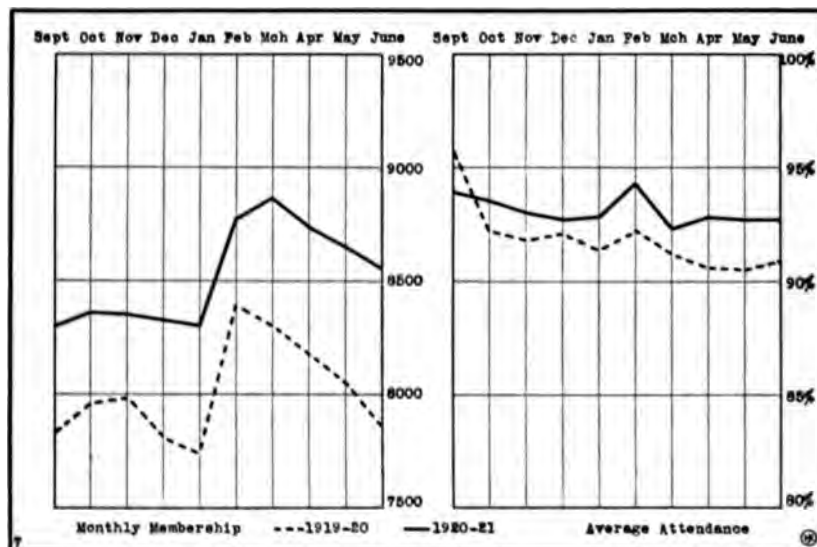


Diagram 14

Table XIX—Seventh Grade Membership and Attendance

Month	1919-20		1920-21	
	Membership	Percent Attendance	Membership	Percent Attendance
September	7,828	95.7	8,306	93.9
October	7,958	92.2	8,363	93.5
November	7,978	91.8	8,356	92.9
December	7,808	92.1	8,327	92.7
January	7,741	91.4	8,301	92.8
February	8,387	92.2	8,776	94.3
March	8,300	91.2	8,865	92.3
April	8,175	90.6	8,743	92.8
May	8,048	90.5	8,650	92.7
June	7,863	90.9	8,555	92.7

Eighth Grade

Membership shows a larger increase in the second semester than in the first. The difference at the opening of this year and last year is 181 and at the close 759.

September has the best, March the poorest attendance.

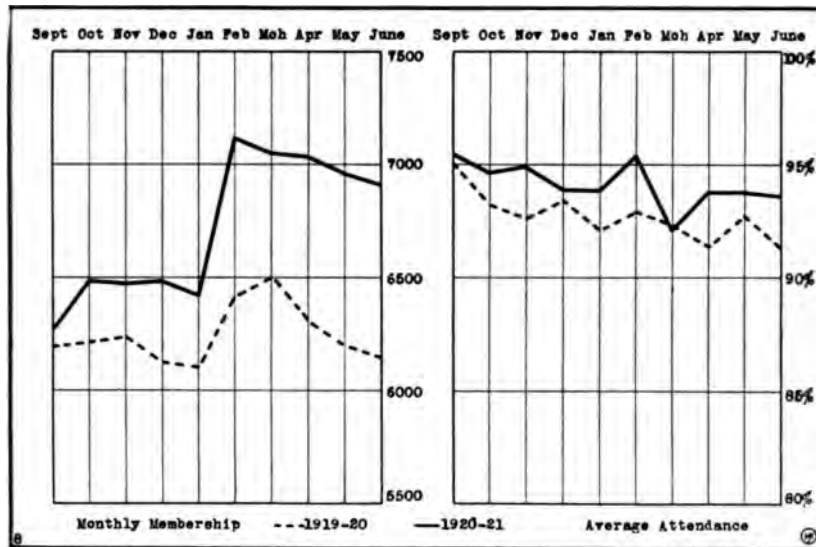


Diagram 15

Table XX—Eighth Grade Membership and Attendance

Month	1919-20		1920-21	
	Membership	Percent Attendance	Membership	Percent Attendance
September.....	6,192	95.1	6,273	95.4
October.....	6,208	93.2	6,487	94.5
November.....	6,234	92.6	6,472	94.9
December.....	6,125	93.4	6,486	93.9
January.....		92.1	6,419	93.8
February.....		92.9	7,115	95.3
March.....		92.3	7,046	92.1
April.....			7,028	93.8
May.....			6,958	93.8
June.....	6,951		6,912	93.8

Ninth Grade

Membership takes a decided increase at the beginning of the second semester, 1,367 as compared with 449 last year. This can be contributed to unemployment.

Attendance gains especially during February to June over the previous year.

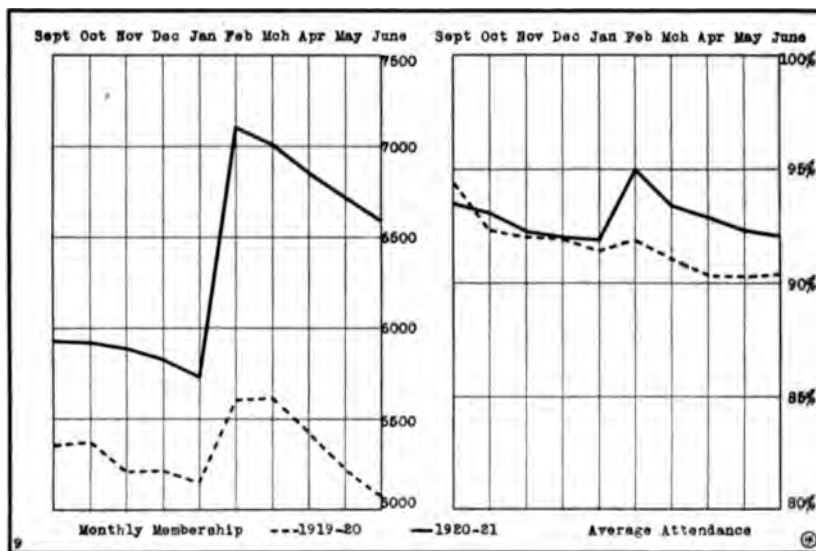


Diagram 16

Table XXI—Ninth Grade Membership and Attendance

Month	1919-20		1920-21	
	Membership	Percent Attendance	Membership	Percent Attendance
September.....	5,353	94.4	5,933	93.5
October.....	5,367	92.3	5,921	93.
November.....	5,212	92.	5,893	92.2
December.....	5,215	91.9	5,823	92.
January.....	5,151	91.4	5,736	91.9
February.....	5,600	91.9	7,103	95.
March.....	5,609	91.1	7,011	93.
April.....	5,425	90.4	6,857	92.9
May.....	5,226	90.3	6,717	92.
June.....	5,074	90.4	6,594	92.1

Tenth Grade

The membership curve follows last year's closely, ending with an increase of 504 or 16.6% in June.

Attendance shows a variation of 2.4% between the best and poorest months.

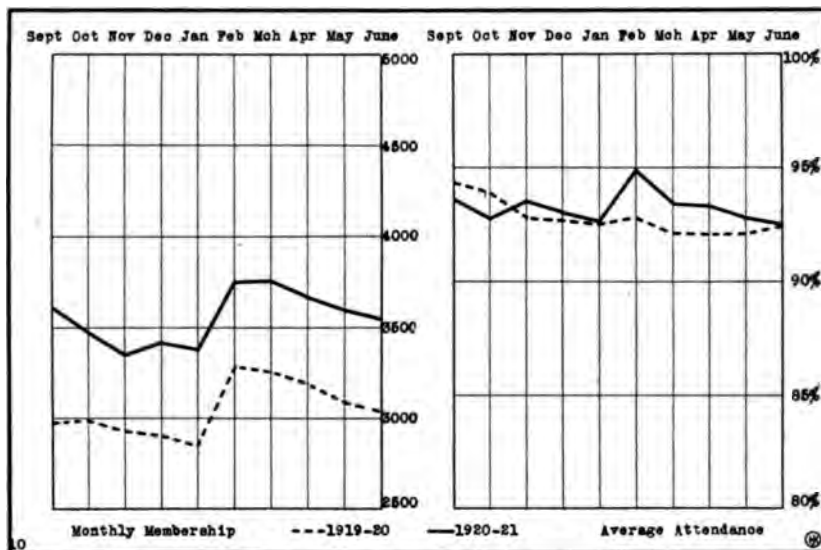


Diagram 17

Table XXII—Tenth Grade Membership and Attendance

Month	1919-20		1920-21	
	Membership	Percent Attendance	Membership	Percent Attendance
September.....	2,973	94.3	3,600	93.6
October.....	2,987	93.9	3,473	92.8
November.....	2,927	92.8	3,348	93.4
December.....	2,906	92.7	3,418	93.0
January.....	2,845	92.5	3,374	92.6
February.....	3,284	92.7	3,751	94.9
March.....	3,258	92.1	3,754	93.4
April.....	3,192	92.1	3,665	93.3
May.....	3,088	92.1	3,596	92.8
June.....	3,040	92.4	3,544	92.5

Eleventh Grade

The membership curve of this grade resembles that of the ninth grade closely.

Attendance between the corresponding months of both semesters was practically alike.

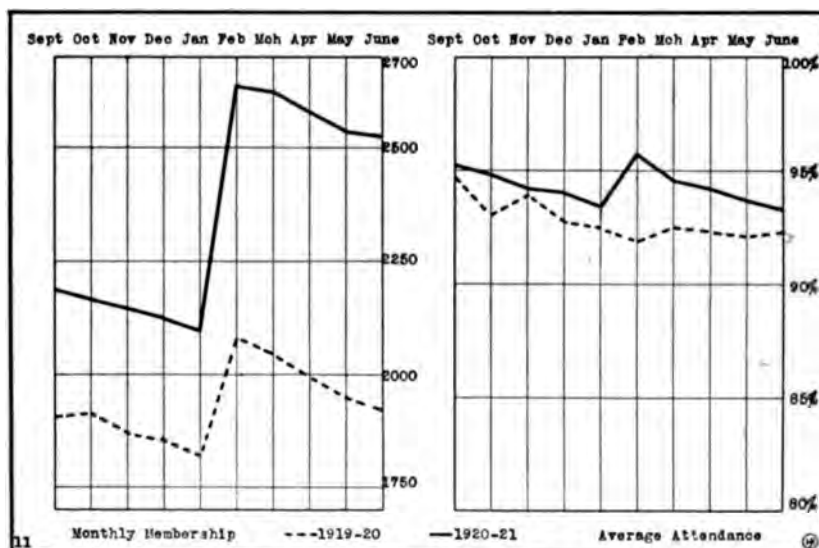


Diagram 18

Table XXIII—Eleventh Grade Membership and Attendance

Month	1919-20		1920-21	
	Membership	Percent Attendance	Membership	Percent Attendance
September.....	1,907	94.7	2,186	95.1
October.....	1,915	93.	2,166	94.7
November.....	1,872	93.9	2,144	94.2
December.....	1,856	92.8	2,123	93.9
January.....	1,822	92.5	2,095	93.4
February.....	2,079	91.9	2,635	95.7
March.....	2,045	92.5	2,622	94.6
April.....	1,994	92.3	2,578	94.2
May.....	1,948	92.1	2,536	93.7
June.....	1,922	92.3	2,524	93.3

Twelfth Grade

The membership peak is reached in May. There is a noticeable difference between the two years in the decided drop in June, 1921.

Attendance follows closely the 95% line.

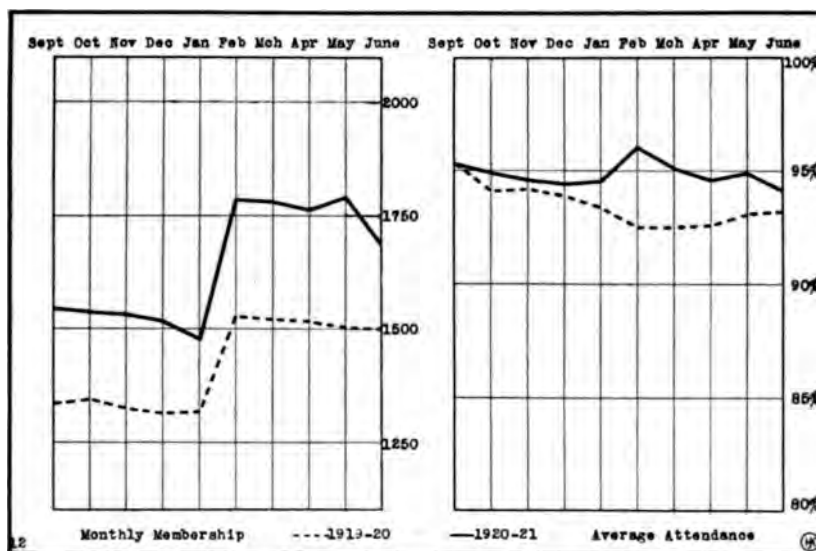


Diagram 19

Table XXIV—Twelfth Grade Membership and Attendance

Month	1919-20		1920-21	
	Membership	Percent Attendance	Membership	Percent Attendance
September.....	1,335	95.3	1,542	95.2
October.....	1,346	94.1	1,536	94.8
November.....	1,323	94.2	1,531	94.5
December.....	1,314	93.9	1,516	94.4
January.....	1,317	93.4	1,476	94.4
February.....	1,526	92.5	1,784	96.0
March.....	1,521	92.5	1,777	95.1
April.....	1,515	92.6	1,762	94.6
May.....	1,503	93.1	1,789	94.9
June.....	1,501	93.2	1,688	94.1

Continuation Classes

Both Junior and Senior Continuation Classes showed a large gain in membership over 1919-20.

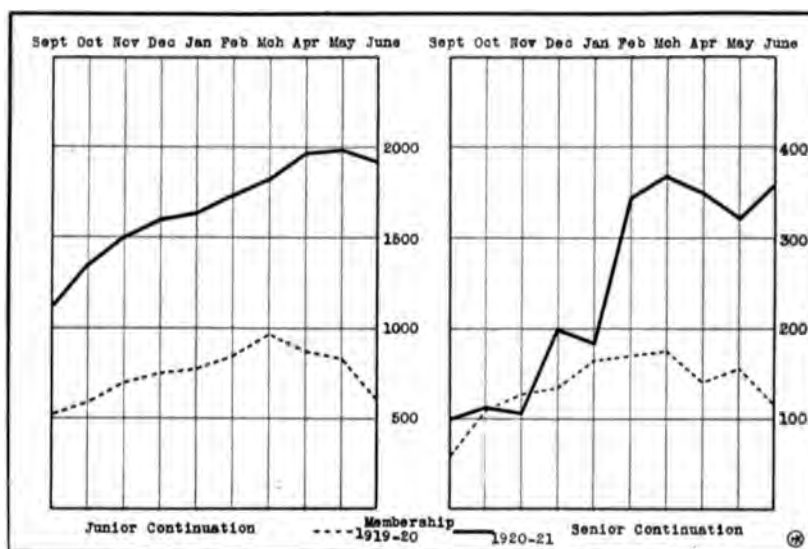


Diagram 20

Table XXV—Continuation Classes Membership

Month	Junior Continuation		Senior Continuation	
	June 1919-20	June 1920-21	June 1919-20	June 1920-21
September.....	1018	1121	59	99
October.....	1093	1349	110	112
November.....	1199	1499	128	106
December.....	1247	1599	134	200
January.....	1274	1628	164	183
February.....	1344	1730	170	345
March.....	1466	1819	175	368
April.....	1369	1965	141	349
May.....	1332	1983	156	321
June.....	1108	1919	117	358

Table XXVI—College Units**A—DETROIT TEACHERS COLLEGE**

Month	1919-20		1920-21	
	Member-ship	Percent Attendance	Member-ship	Percent Attendance
September.....	316	98.7	402	95.0
October.....	330	98.8	405	96.0
November.....	330	97.6	394	96.0
December.....	343	97.2	394	96.0
January.....	326	96.3	386	96.0
February.....	329	97.2	412	94.0
March.....	330	96.9	404	95.0
April.....	313	96.9	411	96.0
May.....	302	89.1	431	96.0
June.....	299	90.2	430	96.0

B—DETROIT JUNIOR COLLEGE

September.....	476	97.3	629	99.0
October.....	494	93.2	675	98.0
November.....	469	93.9	656	98.0
December.....	447	94.9	625	98.0
January.....	437	95.2	618	99.0
February.....	552	97.2	807	98.0
March.....	536	97.7	802	98.0
April.....	506	97.3	759	98.0
May.....	488	97.7	740	97.0
June.....	480	97.7	733	98.0

**Sidney D. Miller Intermediate School**

Entire System

Contrary to 1919-20 the peak load for 1920-21 is reached in the second semester, in April, due largely to unemployment of students in the higher grades who ordinarily go into industrial life. There is no marked slump during the winter months.

Attendance shows a healthy increase throughout the year. Better weather conditions, particularly during the second semester account for this.

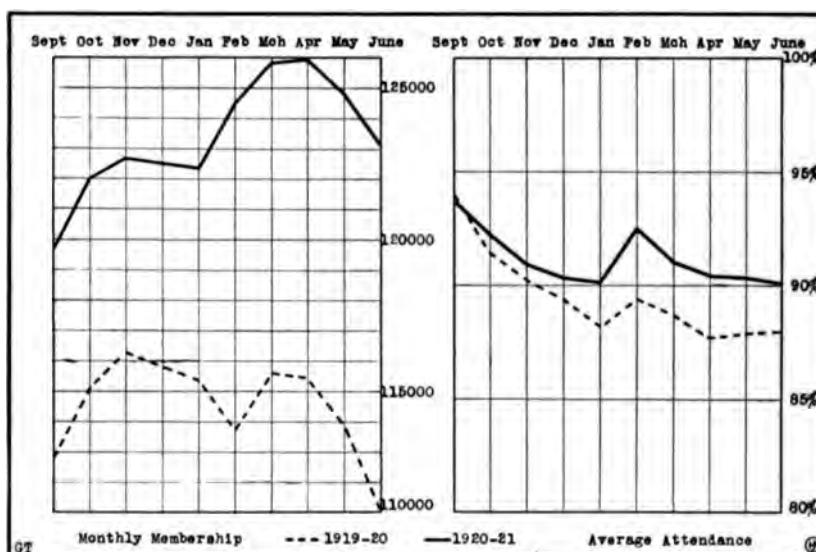


Diagram 20a

Table XI—Membership and Attendance

Month	1919-20		1920-21	
	Membership	Percent Attendance	Membership	Percent Attendance
September.....	112,806	94.	119,688	93.6
October.....	115,117	91.4	122,059	92.22
November.....	116,284	90.2	122,690	90.9
December.....	115,790	89.4	122,529	90.3
January.....	115,367	88.2	122,370	90.1
February.....	113,699	89.4	124,514	92.5
March.....	115,591	88.7	125,885	91.
April.....	115,444	87.7	125,911	90.4
May.....	113,844	87.9	124,812	90.3
June.....	110,019	88.	123,155	90.1

Percent of Attendance by Grades

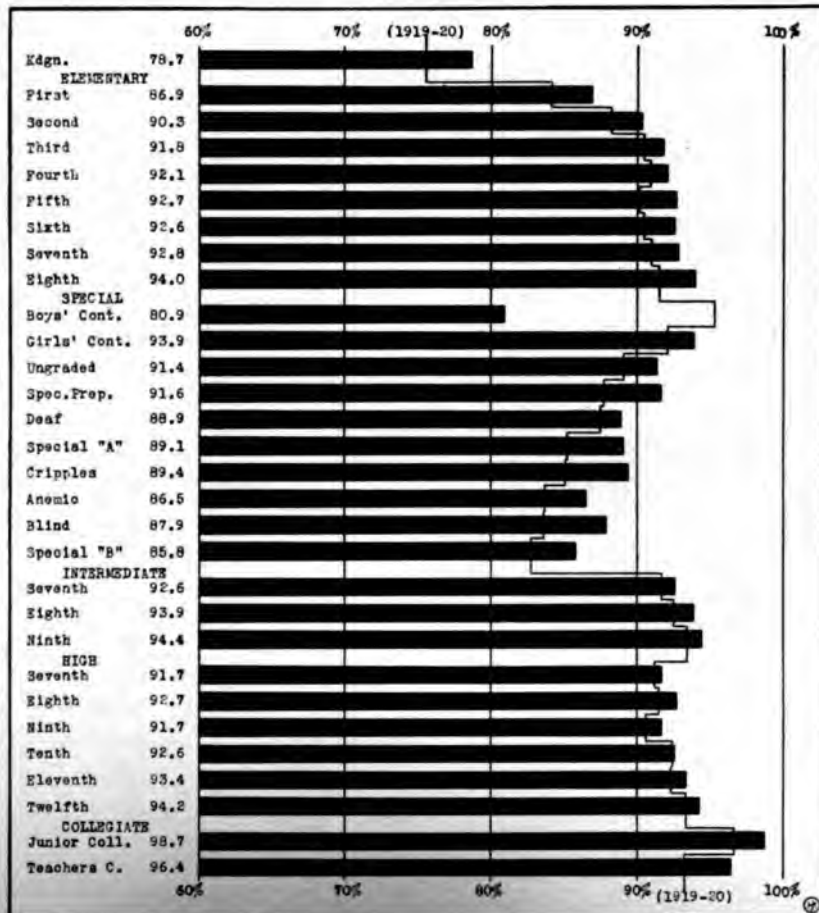


Diagram 21

Diagram 21 shows the percent of attendance by grades with the thick black bars representing 1920-21 and the thin black bars representing 1919-20. With one exception all grades show better attendance than the preceding year.

School Registration

1920-21

Table XXVII—Day Schools

Grades	Registration by Grades 1919-20			Registration by Grades 1920-21		
	Boys	Girls	Totals	Boys	Girls	Totals
Kindergarten.....	8,404	8,214	16,618	8,879	8,776	17,655
1st.....	11,460	10,566	22,026	12,220	11,351	23,571
2nd.....	7,551	7,238	14,789	7,871	7,397	15,268
3rd.....	6,673	6,561	13,234	6,802	6,669	13,471
4th.....	6,331	6,238	12,569	6,146	6,231	12,377
5th.....	6,020	5,951	11,971	5,429	5,356	10,785
6th.....	5,037	4,985	10,022	5,279	5,350	10,629
Total Elementary.....	43,072	41,539	84,611	43,747	42,354	86,101
7th.....	4,924	4,670	9,594	4,514	4,669	9,183
8th.....	3,338	3,629	6,967	3,416	3,540	6,956
9th.....	3,670	3,435	7,105	3,185	3,208	6,393
Total Intermediate.....	11,932	11,734	23,666	11,115	11,417	22,532
10th.....	1,600	1,707	3,307	1,939	1,823	3,762
11th.....	1,056	1,023	2,079	1,174	1,147	2,321
12th.....	693	720	1,413	807	800	1,607
Total High.....	3,349	3,450	6,799	3,920	3,770	7,690
Americanization.....				108	69	177
Special A.....	863	321	1,184	749	284	1,033
Special B.....	464	201	665	473	190	663
Special Preparatory.....	431	500	931	340	339	679
Special Advanced.....				160	135	295
Ungraded.....	400	10	410	378		378
Open Air.....	140	138	278	165	153	318
Classes for Blind.....	33	28	61	38	36	74
Classes for Crippled.....	97	67	164	79	74	153
Classes for Deaf.....	88	64	152	91	72	163
Total Special Classes.....	2,516	1,329	3,845	2,581	1,352	3,933
Voc. Classes—Boys.....	98		98	256		256
Voc. Classes—Soldiers.....				481	22	503
Continuation—Jr.....	1,259	1,461	2,720	1,315	1,589	2,904
Continuation—Sr. (a).....				278	352	630
Total Continuation.....	1,259	1,461	2,720	1,593	1,941	3,534
Junior College.....	444	164	608	579	205	784
Detroit Teachers College....	5	428	433	12	455	467
College of Med. & Surg.....	144	4	148	166	5	171
Total Colleges.....	593	596	1,189	757	665	1,422
Post Graduates.....	23	35	58	32	19	51
Grand Total.....	71,246	68,358	139,604	73,361	70,316	143,677

(a) carried on the evening school report (1919-20).

Table XXVIII—Evening School Statistics, 1920-21

School	Elementary				Percent of Attendance	High				Percent of Attendance	Total				Percent of Attendance
	Registration		Average Member-ship			Registration		Average Member-ship			Registration		Average Member-ship		
	Men	Women	Men	Women		Men	Women	Men	Women		Men	Women	Men	Women	
Cass.....	667	65	343.5	237.3	69.1	3,695	157	1,245.4	975.5	78.3	4,362	222	1,588.9	1,212.8	76.3
Central.....	381	152	301.9	181.2	60.	1,170	832	1,129.4	648.8	57.4	1,561	984	1,431.3	830.	57.9
Eastern.....	741	243	392.4	248.5	63.3	841	754	355.4	218.1	61.4	1,582	907	747.8	466.6	62.4
Nordstrum.....	194	80	131.	71.4	54.5	287	254	143.9	85.1	50.2	481	334	274.9	156.5	56.9
Northeastern.....	769	83	320.8	192.3	59.9	362	476	222.7	135.	60.6	1,131	559	543.5	327.3	60.2
Northern.....	185	70	151.7	111.6	73.2	460	677	599.6	318.7	53.2	645	756	751.3	430.3	57.3
Northwestern.....	184	67	141.4	73.6	52.1	390	779	538.9	293.4	54.4	574	846	680.3	367.0	53.9
Southeastern.....	388	139	223.7	146.3	65.4	307	405	395.1	211.6	53.6	695	634	618.8	357.9	57.8
Western.....	171	20	127.6	69.3	54.3	347	365	221.4	137.1	61.9	518	304	349.	206.4	59.1
Wilkins.....	.....	.....	.....	.....	.....	337	339	225.	142.2	63.2	337	339	225.	142.2	63.2
Bishop.....	642	236	508.4	430.1	85.7	.....	.....	.....	.....	.....	642	236	508.4	436.1	85.7
Davison.....	112	25	127.7	67.1	52.6	.....	.....	.....	.....	.....	112	25	127.7	67.1	52.6
Dwyer.....	480	195	286.5	155.5	54.3	.....	.....	.....	.....	.....	480	195	286.5	155.5	54.3
Duffield.....	71	2	152.7	90.8	59.5	.....	.....	.....	.....	.....	71	2	152.7	90.8	59.5
Ellis.....	178	45	159.3	90.4	50.8	.....	.....	.....	.....	.....	178	45	159.3	90.4	56.8
Factory.....	1,101	98	475.	321.5	67.7	.....	.....	.....	.....	.....	1,101	98	475.	321.5	67.7
Mothers.....	477	.....	347.	247.5	71.3	.....	.....	.....	.....	.....	477	.....	347.	247.5	71.3
Total.....	6,264	2,015	4,190.6	2,740.4	65.4	8,196	5,128	5,076.8	3,165.5	62.3	14,460	7,143	9,267.4	5,905.9	63.7
Junior College.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	204	230	252.8	170.3	67.4
Teachers College.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	195	1,896	1,896.	1,852.	98.2
Total College.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	399	2,116	2,138.8	2,022.3	94.6
Grand Total.....	6,264	2,015	4,190.6	2,740.4	65.4	8,196	5,128	5,076.8	3,165.5	62.3	14,859	9,269	11,406.3	7,929.3	69.5

Table XXIX—Summer Schools, 1920

	Registration		Total	Memb. at Close	Average Memb.	Average Attend.	Percent of Attend
	Boys	Girls					
Elementary.....	3,463	3,511	6,974	5,670	6,103.3	5,778.7	94.7
High.....	698	557	1,255	1,026	1,052.9	987.7	93.8
Colleges.....	191	475	666	644	647.1	621.3	96.0
Special Units.....	703	590	1,293	944	1,090.9	1,028.8	94.3
Grand Total.....	5,055	5,133	10,188	8,284	8,894.1	8,416.5	94.6

Table XXX—Classification of Summer Students

Schools	Number Repeating Work		Number Taking New Work		Total Registration	Percent of Repeaters Promoted	Percent of Pupils Taking New Work Promoted	Total Percent Promoted
	Boys	Girls	Boys	Girls				
Bishop	21	18	296	307	642	87.	63.4	64.8
Burton .....	...	2	...	28	40	50.	100.	96.6
Ellis	12	17	155	147	409	72.4	90.7	89.1
Franklin	42	42	142	166	392	50.	71.1	66.5
Cass. Technical... ..	24	1	192	14	231	78.	84.	83.6
Central	Data Incomplete				1,974	88.3	84.1	76.1
Eastern	54	48	263	250	807	73.	79.	78.
Nordstrum.....	54	40	193	209	623	82.9	82.1	82.4
Northern.....	36	44	356	342	984	78.7	78.8	78.7
Northwestern....	103	98	179	196	761	87.6	72.	77.4
Southeastern....	78	45	183	184	539	94.3	78.2	82.2
Lincoln	20	20	319	368	849	75.	69.6	69.9
Longfellow.....	5	4	86	82	177	77.7	81.6	81.3
Total.....	449	379	2,364	2,293	8,429	76.5	79.6	78.9

Table XXXI—High Schools, 1920-21

Schools	Total Registration	Average Membership	Average Attendance	Percent of Attendance	No. Belonging at Close	No. Instructors Excluding Prin. and Clerks	Pupils per Instructor Based on Av. Memb.	No. Graduates	
								Boys	Girls
Cass.....	1,347	1,437.4	1,295.9	90.15	1,544	99	14.5	92	7
Central.....	1,958	1,843.6	1,720.0	93.30	1,864	103	17.9	130	142
Eastern.....	1,840	1,822.4	1,725.0	94.65	1,872	81	22.5	114	119
Nordstrum....	787	782.3	743.5	95.04	802	41	19.1	31	31
Northeastern..	1,448	1,430.0	1,308.8	91.52	1,519	72	19.8	27	35
Northern.....	2,198	1,986.7	1,861.5	93.69	2,003	105	18.9	142	146
Northwestern..	2,816	2,758.6	2,499.7	90.61	2,808	128	21.5	114	172
Southeastern..	1,438	1,441.2	1,350.9	93.73	1,521	68	21.2	24	44
Western.....	1,057	1,034.2	968.8	93.67	977	56	18.5	55	67
Wilkins.....	732	699.6	622.6	88.99	661	29	24.1	6	91
Total.....	15,621	15,236.0	14,096.7	92.52	15,571	782	19.3	735	854

Table XXXII—Analysis of Lefts 1920-21

	Other Rooms	Other Buildings	Detroit Parochial Schools	Other Cities in Mich.	Other States	Reform School	Institute for Defectives	Employment Permits	Marriage	Over Legal Age Limit	Deaths	Others
KDG.....	1,456	1,591	131	474	454	5	4				26	970
1st.....	9,674	4,371	516	1,110	1,152	12	12	1		1	43	860
2nd.....	3,158	3,012	309	735	801	32	6	1		4	24	239
3rd.....	1,957	2,596	281	592	754	22	1	4	2	4	21	177
4th.....	1,408	2,289	270	522	615	32	5	5	1	9	18	142
5th.....	926	1,985	224	423	537	22	12	14	2	23	12	125
6th.....	814	1,619	143	425	462	18	2	20	1	38	14	111
Total Elem. . .	17,937	15,872	1,743	3,807	4,321	138	38	45	6	79	132	1,654
7th.....	495	1,078	127	352	336	9	2	62	2	53	12	148
8th.....	196	511	56	203	226	11		63	3	81	5	94
9th.....	237	300	58	131	195		4	121	5	256	4	343
Total Inter. . .	928	1,889	241	686	757	20	6	246	10	390	21	585
10th.....	78	101	29	59	72	1	1	59	1	192	2	193
11th.....	31	38	10	22	63	1	2	21		152	3	84
12th.....	10	27	6	16	12		3	2	1	105	2	122
Total High. . .	119	166	45	97	147	2	6	82	2	449	7	399
Special A.	89	347	41	38	37	3	5	1	1	2	4	31
Special B.	32	327	18	33	39	5	6	31	5	125		20
Special Adv. . .	2	6		3	5							4
Special Prep. .	63	105	7	21	23	2	3	14		40	1	30
Ungraded.....	38	75	9	12	13	14		18		51		7
Open Air.....	9	48	13	11	4						1	17
Blind.....	2	8		6	4					2		14
Crippled.....	1	1		4	3						1	7
Deaf.....	1	7		4	4		1					7
Americani- zation.....	60	15	5	2	8					40		21
Total Special..	297	939	93	134	140	24	15	64	6	260	7	158
Sr. Cont.....					11							321
Jr. Cont.....	28	181	20	118	69	8		22	13	820		256
Voc. Tr. Gd. Boys.....	275	12	3	2	4			14		8		27
Voc. Tr. Sol- diers.....										158		298
Total Cont....	303	193	23	120	84	8		36	13	986		902
Post Grad.....	3				3			2	1	30		24
Jr. College.....										187		
Det. Teachers College.....												64
Total College.	3				3			2	1	217		88
Grd. Total....	21,043	20,650	2,276	5,318	5,906	197	69	475	38	2,381	193	4,756
Percent of Registration..	14.6	14.4	1.6	3.7	4.1	.1	.04	.3	.02	1.6	.1	3.3

Safe Living

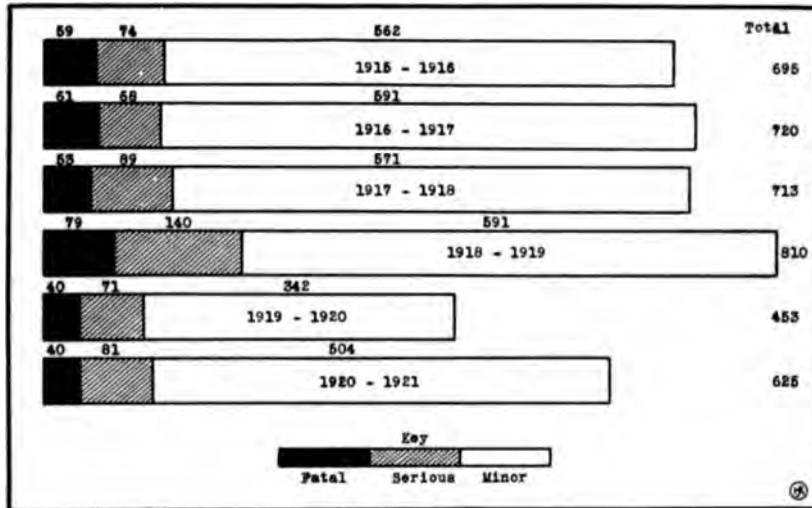


Diagram 22

Diagram 22 shows graphically the number of accidents by type to school children for the last six school years. In spite of the large increase in automobile registration, the number of fatalities did not exceed those of 1919-20. Serious accidents showed an increase of 10, and minor accidents, 162. This large increase in the number of minor accidents is due somewhat to the more exact method of reporting accidents now practiced by the Police Department.

Accidents by Years

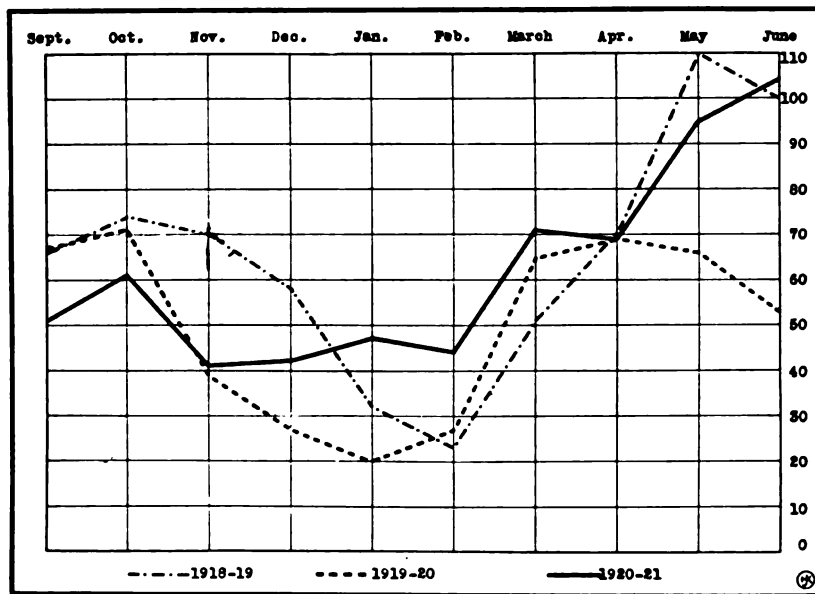


Diagram 23

The accident curve by months for the last three years shows a larger number of accidents during the winter months of 1920-21, due largely to the fact that the moderate weather did not result in a decrease of automobile driving during this period. The curve jumps sharply after April and in June passed above the 1918-19 mark.

Retardation by Grades

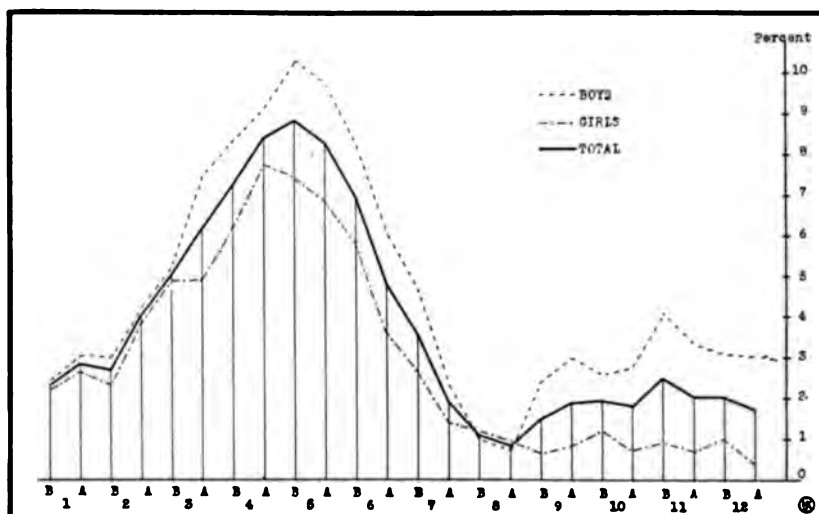


Diagram 24

Table XXXIII—Three or More Year Retardation by Grades

Grade	Number Boys	Percent Boys	Number Girls	Percent Girls	Number Total	Percent Total
B 1	2	0.03	3	0.05	5	0.04
A 1	1	0.03	2	0.05	3	0.04
B 2	1	0.03	2	0.05	3	0.04
A 2	5	0.16	4	0.14	9	0.15
B 3	1	0.03	3	0.09	4	0.06
A 3	6	0.22	6	0.22	12	0.22
B 4	6	0.20	8	0.28	14	0.24
A 4	9	0.35	9	0.37	18	0.36
B 5	14	0.55	13	0.51	27	0.53
A 5	11	0.48	17	0.78	28	0.62
B 6	14	0.58	17	0.63	31	0.61
A 6	23	1.04	25	1.15	48	1.09
B 7	19	0.89	20	0.81	38	0.83
A 7	25	1.34	39	2.10	64	1.72
B 8	35	1.94	34	1.81	69	1.87
A 8	43	3.22	30	2.02	73	2.59
B 9	64	3.31	54	2.84	118	3.08
A 9	38	3.82	30	2.85	68	3.32
B 10	50	4.81	38	4.12	88	4.50
A 10	54	6.76	55	7.87	109	7.30
B 11	37	5.57	38	5.78	75	5.67
A 11	46	10.25	50	11.15	96	10.90
B 12	38	7.88	25	5.00	63	6.42
A 12	25	8.41	35	12.50	60	10.40

Acceleration by Grades

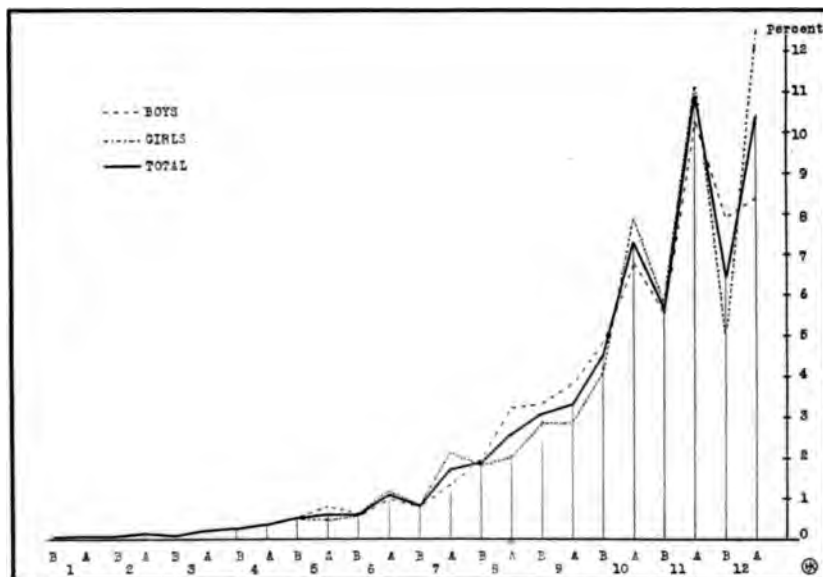


Diagram 25

Table XXXIV—Three or More Year Acceleration by Grades

Grade	Number Boys	Percent Boys	Number Girls	Percent Girls	Number Total	Percent Total
B 1	155	2.44	134	2.23	289	2.33
A 1	112	3.06	90	2.66	202	2.87
B 2	121	3.03	90	2.34	211	2.69
A 2	129	4.24	109	3.84	238	4.04
B 3	173	5.23	163	4.89	336	5.06
A 3	204	7.44	127	4.88	331	6.19
B 4	243	8.32	186	6.21	429	7.25
A 4	231	9.14	190	7.69	421	8.42
B 5	262	10.28	190	7.42	452	8.85
A 5	224	9.72	150	6.84	374	8.32
B 6	198	8.20	156	5.83	354	6.95
A 6	133	6.03	79	3.62	212	4.83
B 7	100	4.67	65	2.64	165	3.57
A 7	44	2.35	26	1.40	70	1.88
B 8	18	1.00	22	1.17	40	1.09
A 8	10	0.75	14	0.94	24	0.85
B 9	46	2.38	12	0.64	58	1.51
A 9	30	3.02	9	0.41	39	1.90
B 10	27	2.60	11	0.55	38	1.94
A 10	22	2.76	7	0.34	29	1.80
B 11	27	4.07	11	0.55	38	2.50
A 11	15	3.00	11	0.55	26	2.04
B 12	15	3.00	11	0.55	26	2.04
A 12	9	3.00	11	0.55	20	1.73

Table XXXV—Length of School Year

Year	Number Days	Year	Number Days
1899-1900	194	1910-1911	191
1900-1901	187	1911-1912	194
1901-1902	188	1912-1913	188
1902-1903	188	1913-1914	181
1903-1904	192	1914-1915	184
1904-1905	192	1915-1916	191
1905-1906	192	1916-1917	190
1906-1907	193	1917-1918	182
1907-1908	193	1918-1919	179
1908-1909	194	1919-1920	186
1909-1910	192	1920-1921	193
Average		189.2	

**Standard Classroom—Fixed Seats****Chairs and Tables**

PART IV—ORGANIZATION

I. General Organization 1920-21

The Board of Education of the City of Detroit owes its existence and authority to the acts of the state legislature of 1842 as amended in 1869, as amended in March, 1873, March, 1881, June, 1883, and November, 1916.

The act of 1869 provided that an inspector be elected from each ward by the people of that ward and this resulted in a 17 member board and later, as new wards were created, in a 21 man board. This portion of the Detroit act was amended at the election of November 7, 1916, when the people of Detroit adopted the enactment of the 1913 legislature relative to the creation of a Board of Education consisting of 7 members. The main changes by this enactment were:

1. Creation of 7 instead of 21 man board.
2. Election of inspectors at large instead of by wards.
3. Elected for a term of six instead of four years.
4. Election by non-partisan ballot.

The Board of Education of the City of Detroit is a corporation brought into existence by the state and endowed with legislative powers subject to the limitations of the acts under which it operates.

By law it observes certain relationships with other city departments. These are as follows:

1. The treasurer of the city of Detroit is the treasurer of the Board of Education.
2. The mayor has the authority to veto any act of the Board of Education whereby any liability or debt may be created, or originating the disposal or expenditure of property or money.

This veto power is suspensive and may be overridden by a two-thirds vote of the Board of Education.

3. The mayor and the common council pass upon and decide the amount of money to be appropriated on the basis of the annual budget requests.

4. In case of vacancies occurring in the membership of the Board of Education, the mayor is authorized to fill such vacancies. Such nominee holds office until his successor is elected, which is done at the next regular election for members of the board.

5. The mayor, controller, treasurer and recorder are ex-officio members of the board. They have a right to a seat at all meetings for purposes of deliberation, but possess no vote.

6. The Recorder's Court has jurisdiction of all suits wherein the child may be a party, and of all prosecutions for violations of the by-laws and ordinances of the Board of Education.

7. The corporation counsel assigns a member of his staff to act as legal advisor.

8. The Department of Buildings and Safety Engineering must pass upon all building and engineering plans.

9. The Fire Department is responsible for the inspection of buildings for fire hazards.

In addition the Board of Education has established co-operative relationships with other city departments. These are:

1. The Department of Health.

This relationship provides for medical and dental inspection of children.

2. The Juvenile Court.

This court assigns children to the Parental School.

3. The Police Department.

Transportation of crippled children to and from school. Co-operation between Bureau of Public Safety and Safe Living instruction in the schools.

4. Recreation Commission.

This commission operates the school playgrounds and has charge of community center work in the schools.

5. City Plan Commission.

Co-operative studies in the preparation of building programs.

6. City Engineer.

Co-operative studies in the preparation of building program.

7. Department of Parks and Boulevards.

Co-operates in securing shrubs and trees for landscaping purposes. Furnishes material for nature study to teachers.

8. Department of Public Lighting.

Furnishes light to the school plant.

9. Welfare Commission.

10. Arts Commission.

Established Children's Museum to allow wider use of exhibits by schools.

11. Department of Public Works.

Assists in making schools on outskirts easy of access and safe from sanitary standpoint.

The duties of the Board of Education may be divided in three groups:

1. Legislative.
2. Administrative.
3. Financial.

1. Legislative

In general its legislative powers may be defined as the authority to make by-laws and ordinances relative to:

1. The taking of the school census.
2. The visitation of schools.
3. The length of the school year.
4. The examination and employment of teachers, their powers and duties.
5. The regulation of schools and the use of books.
6. The appointment of necessary officers, and prescribing their duties and powers.
7. Anything whatever that may advance the interests of education, the good government and prosperity of the free schools in Detroit, and the welfare of the public concerning the same.

2. Administrative

The administrative powers of the board may be defined as the operation and maintenance of the public schools and the public library and the appointment and supervision of essential officers for this purpose.

The appointive officers specifically named by state law

- (1) the superintendent of schools, whose term of office

years, and (2) the secretary, who shall hold his office during the pleasure of the board.

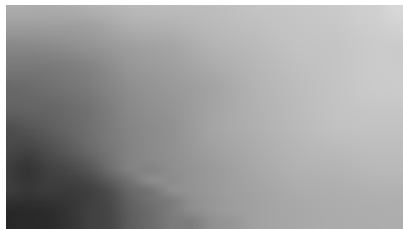
The present by-laws provide for two other appointive offices, those of business manager and assistant secretary. The business manager is also secretary. These officers, the business manager, and assistant secretary, are elected by the Board of Education, but are responsible to the superintendent of schools. The superintendent of schools is responsible to the Board of Education for the instruction, operation and maintenance of the school plant.

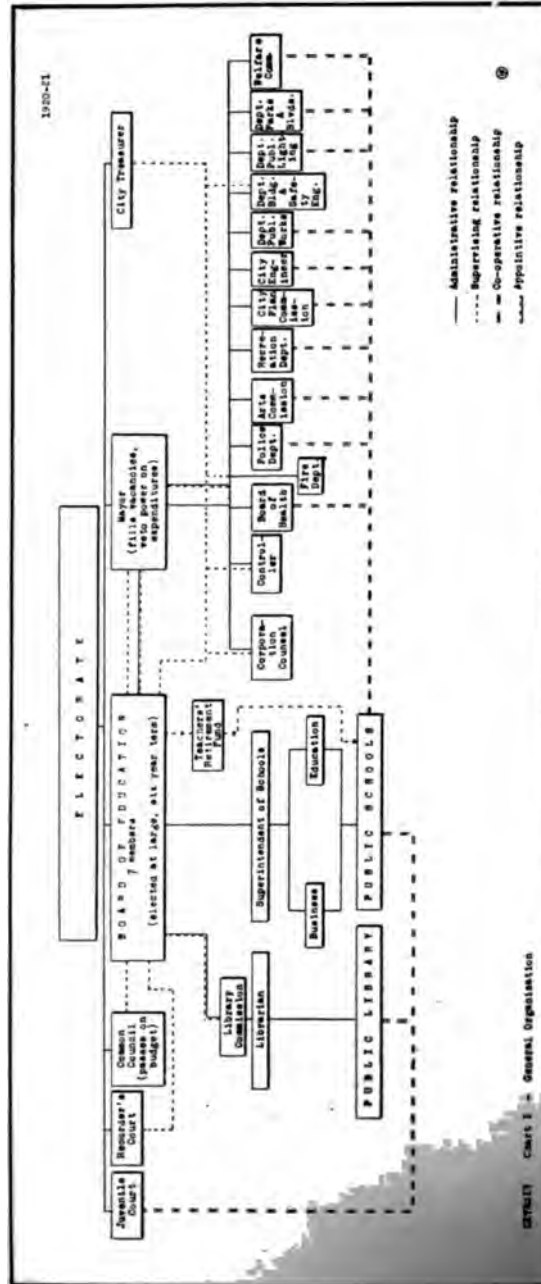
In accordance with the authority granted under the acts of 1871 and 1881 the Board of Education has delegated the administration of the public library to a commission of six members, one member of which is elected each year. The president of the Board of Education is an ex-officio member of this commission.

3. Financial

The financial powers of the Board of Education are more circumscribed than is the general practice. In most of the large cities, in the majority of smaller ones and in rural districts the Board of Education or Board of Trustees possess the authority to spread its own taxes on the rolls, within limits set by the state legislature. The Detroit Board of Education must submit its requests for money to the mayor and the Common Council. Its expenditures are subject to the mayor's suspensive veto.

These relationships are shown in Chart I.





II. Educational Organization

The present educational organization is an evolutionary growth.

The superintendent is the responsible officer and his educational administrative staff is divided into three definite layers or groups each responsible directly to the superintendent. These groups comprise:

1. Assistant Superintendents
2. Directors
3. Assistant Directors and Administrative Supervisors

Superintendent

The superintendent personally administers the following activities:

1. Medical College
2. Junior College
3. Payroll Department
4. Administrative Library

Deputy Superintendent

The deputy superintendent administers directly the elementary platoon schools, intermediate schools, high schools, high school auditor, continuation classes and the vocational bureau.

Assistant Superintendents

There are two assistant superintendents. One has charge of:

1. Administration of Elementary Schools
2. Building Program
3. Architectural Engineering
4. Administrative Research

The second has charge of:

1. The selection of teachers
2. The assignment and transferring of teachers
3. The inspection of new teachers
4. Text books

Directors

There are four directors. One has charge of:

1. Instruction (Supervision)
2. Teachers Training (Teachers College)
3. Instructional Research (Measurement)

The second unit is Statistics and Reference, or the beginnings of the Department of Records and Child Accounting. This department also includes publications, financial and administrative research and preparation of the budget.

The third department is Educational Expenditures, including personal service, furniture and equipment, books and supplies.

The fourth department is Special Education, including the Psychological Clinic and nine divisions of classes for exceptional children.

Assistant Director and Supervisors

The assistant director has charge of secondary research and the administration of the evening high schools. He is also responsible to the deputy superintendent and one of the assistant superintendents.

A high school principal becomes supervisor of the summer schools. This relationship exists for only two months each year.

A third supervisor has charge of Americanization work in all of its phases.

The fourth supervisor has administrative control of the continuous school census and has supervisory control of the attendance officers who are responsible to the district, intermediate and high school principals. He handles all referred cases and carries them into court.

This organization follows in Chart II.



III. Organization of the Business Department

The business manager is chosen by the Board of Education but is directly responsible to the superintendent of schools. He has a secondary function, however, as secretary of the Board of Education, and, as such, is responsible to the Board of Education.

His assistant is also assistant secretary of the Board of Education.

There are five sub-departments within this organization. These comprise (1) Accounting, (2) Purchasing, Storage and Distribution, (3) Stenographers and Records, (4) Supervising Engineer and (5) Supervisor of Properties. Under this arrangement the maintenance of buildings and grounds is divided between two departments, the mechanical work falling to the supervising engineer.

The Accounting Department does not control internal accounting activities in the schools or the payroll department. It deals with strictly bookkeeping and accounting activities.

This is shown in Chart III.

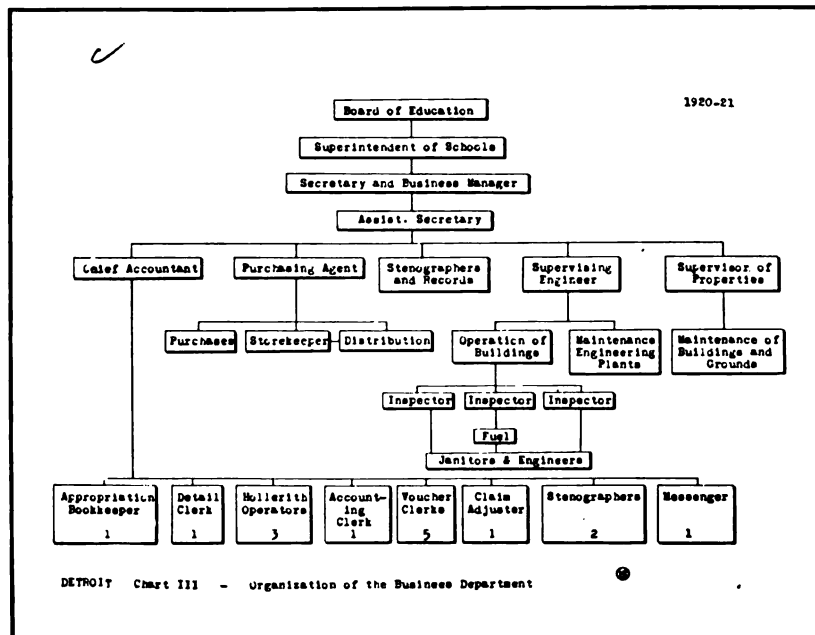


CHART III

IV. Elementary Education Organization

The elementary schools are organized in 14 districts under the administrative control of an assistant superintendent. Each of these districts is in charge of a district principal who, in addition to being responsible for the administration of the schools under his charge, is attached directly to one of the schools in the district. This fact prevents the development of a group of purely formalized and detached district administrative officers. The direct control of the master school in each district also furnishes a means for necessary administrative experimentation that should precede new development.

All correlated or special departments function through this assistant superintendent and the district principals. Supervisors formulate methods and develop material, but these methods are developed and the material presented to principals through the medium of the district principals. This prevents the individual supervisor from attempting the impossible task of developing a section of the course of study and administering it at the same time. Instructions from other departments are furnished the district principals weekly and carried into practice by them.

The assistant superintendent in charge of the selection of teachers deals directly with the district principals in this respect. Requests for additional teachers or transfers come to him through district principals and he assigns or transfers after investigating each request.

A supervisory principal, working out the organization of the platoon schools and handling the detail of organizing new ones, meets with the district principals. Her material is prepared and then turned over to the district principals to administer. This relationship is similar to that of other supervisors.

Attendance officers are attached to each of the districts and report directly to the district principal. Reports on absence are sent to the district principal's building and the officers work from this center.

The Vocational Bureau will function in all elementary buildings having the seventh and eighth grades.

This is shown in Chart IV.

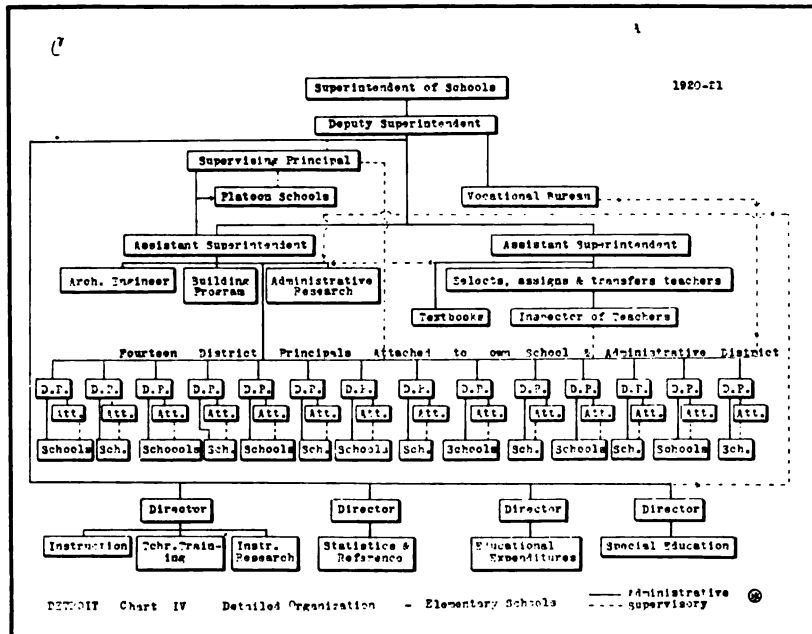


CHART IV

V. Elementary School Organization

The elementary schools fall into three divisions from the standpoint of individual organization. These are (1) Traditional, (2) Departmental, (3) Platoon. The first two are temporary conditions and will disappear within a few years.

The general organization of the first two types is similar except that in the traditional the teacher gives instructions in all subjects and, in the second, the regular classroom work has been departmentalized and a teacher now has one or two subjects where formerly she would have had six or eight.

In the third or ultimate type, the platoon school, the work of departmentalization has been carried to its ultimate conclusion and, in addition, the curriculum has been socialized and carefully balanced in respect to the six departments of instruction. In this type the children are divided into two or three platoons, for administrative purposes, each with a program differing only in time of recitation. This type of organization is used to best advantage.

tion of special rooms, auditorium and gymnasium permits the constant use of every room throughout the entire school day. These types are shown in Chart V.

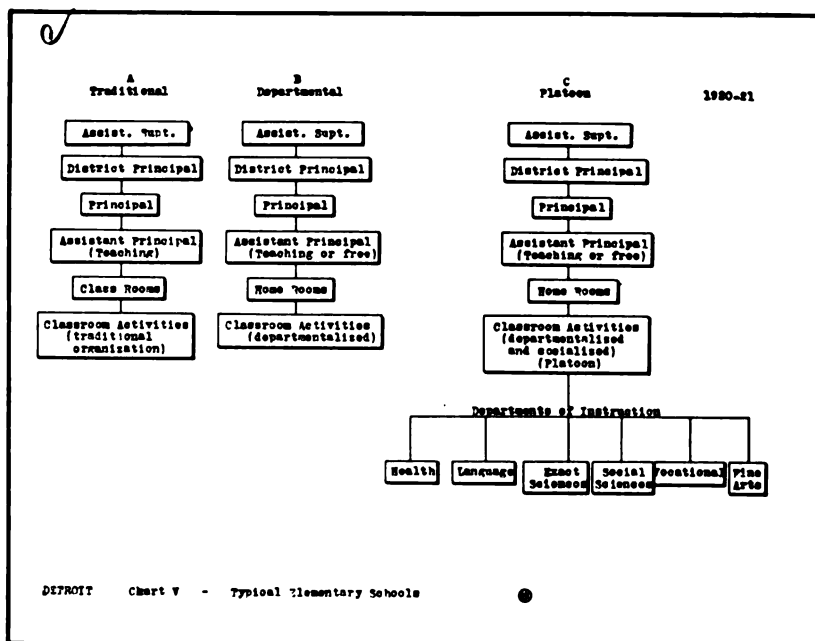


CHART V

VI. Intermediate and High Schools

The intermediate and high schools are administered directly by the deputy superintendent. In the intermediate field he is assisted by a supervisor who is developing curriculum and buildings for the new type of intermediate school. The present four intermediate schools and the high schools are handled directly by the deputy superintendent.

Continuation activities, carried on in the technical and commercial high schools, fall in this department.

The Vocational Bureau, with its guidance, placement and follow up activities are controlled here. These activities extend not only to the continuation and high school groups but to the intermediate and such elementary schools as have seventh and eighth grades.

All internal accounting activities are supervised by the traveling auditor, who reports to the deputy superintendent. This organization appears in Chart VI.

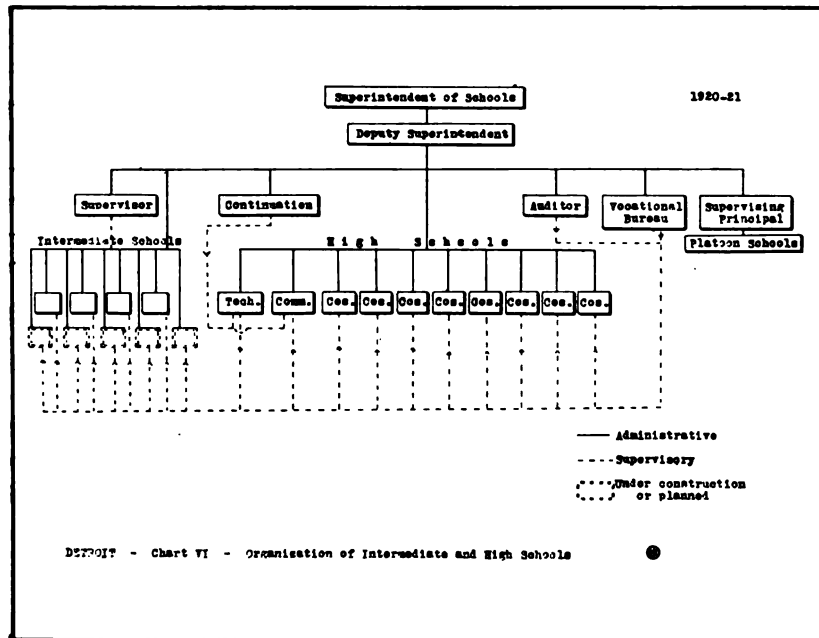


CHART VI

VII. Detailed Organization of Typical High Schools

The intermediate schools are organized upon the home room plan, like the platoon type, and need no further elaboration or explanation.

The high schools are organized upon two plans, with two variations of the second. These are (1) the house or grade room plan, the difference between the two big methods of assigning and changing pupil assembly rooms and (2) the centralized or departmental plan.

The typical Detroit high school is organized upon the house or grade room plan. In these buildings the assistant principal has relatively little direct administrative authority in the classrooms, but administers the evening and summer sessions.

The principal is in direct charge of the faculty or eight house principals, depending upon the size of the school.

These houses are large rooms to which are assigned from 200 to 300 pupils. They are generally assigned alphabetically and remain in the same house throughout their high school career. The sexes are segregated. They report to the house for daily record and spend their vacant periods in study there or in the library. The house principal makes out the pupils' programs, records, checks attendance, attends to cases of discipline and establishes relations with parents. Each house principal is in effect a miniature high school principal.

The department heads in most buildings of this type supervise instruction. The principal, performing the administrative routine that ordinarily would devolve upon the assistant principal, has comparatively little time for effective and scientific supervision. In one building the department heads have taken over certain administrative duties and then make out the pupils' programs and assign to classes, which further relieves the house principal.

The grade room system operates in the same way except that pupils are (1) assigned by grade and not alphabetically and (2) there is no sex segregation. This is shown in Chart VIIa.

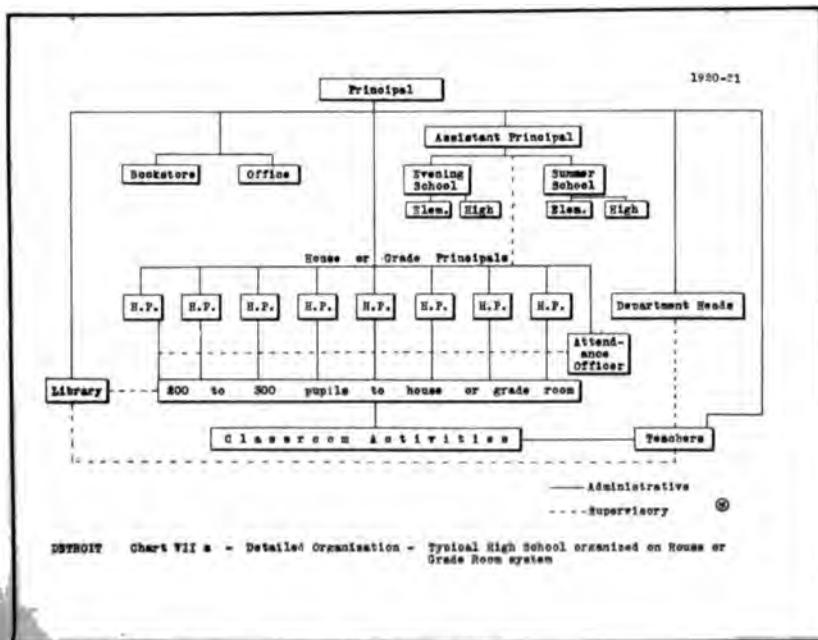


CHART VII-a

The technical high school is organized upon the departmental plan. The general day school activities are in charge of an assistant principal. These are divided into (1) day school, (2) vocational training for boys, (3) continuation, and (4) summer session. The regular day school activities are organized through six department heads. Each of these is in charge of a group of teachers and responsible for the instruction of students within his department. There are no record or grade rooms, this work being done by the teachers during the third period and consolidated by the office. In addition to this work the head of the English department has supervisory control over the library.

The vocational school for boys is in charge of department heads, as are the continuation and summer activities.

The evening school and financial activities of the school are in charge of an assistant principal. The evening school activities are administered directly by a department head under the control of the assistant principal.

This organization is shown in Chart VIIb.

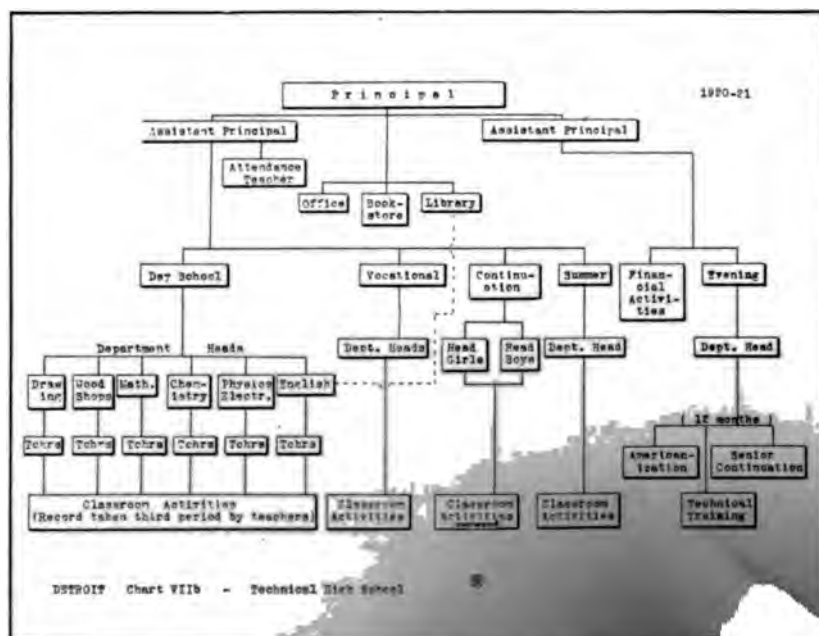


CHART VIIb

A variation of the departmental plan is operative at the commercial high school. There are no department heads and the assignment of classes is done directly by the principal, assisted by several teachers. Record is taken by the classroom teachers during the third period as in the technical school. The office record of absence, etc., is kept by a record teacher who devotes three-fifths of his time to this work. Although there are no department heads, supervision of instruction is carried on by department chairmen, or senior teachers. They are not paid above the regular schedule nor is their class program shortened for this purpose.

The commercial high school is a modification of the technical high school organization and is shown in Chart VIIc.

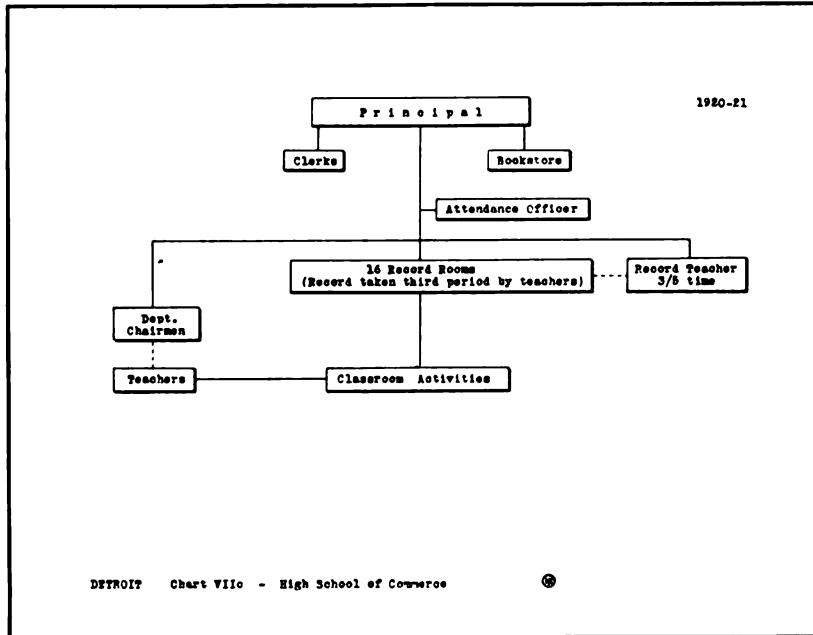


CHART VII-c

VIII. Instruction, Teacher Training and Research

The Director of Instruction and Educational Research is also dean of the Teachers College, the correlation of these three units resulting in the Department of Instruction. The supervisory staff is organized into six departments of instruction, which are:

1. Health Education
2. Language Instruction
3. Mathematics and Exact Sciences
4. Social Sciences
5. Vocational
6. Fine Arts

The entire group comprises the supervisory council, meeting weekly under the leadership of the director. These meetings deal with every phase of instruction and policy and bring out, as one of the results, a balanced curriculum. Their finished work is turned over to the district principals for administration.

The same correlation is effected between the dean and the faculty of the Teachers College so that the ultimate result is a unification of the curriculum from the kindergarten through the elementary schools and Teachers College.

The supervisors work directly with the research department and use the results in their daily work and in the preparation of new courses of study.

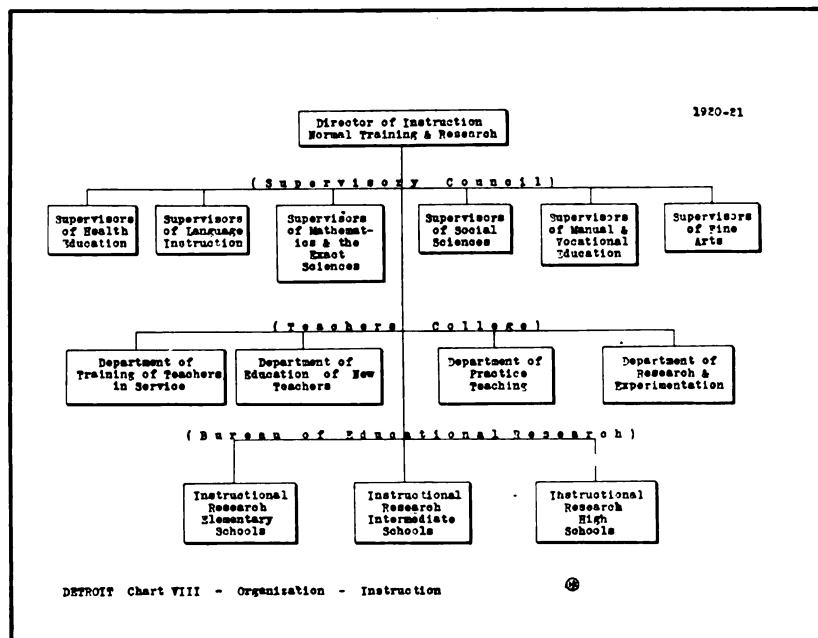


CHART VIII

IX. Special Education

The special activities are grouped under a director. The hub of this unit is the psychological clinic, through which all cases finally clear. Pupils who present surface indications that point towards special classification are sent to clearing rooms and from these temporary rooms pass through the clinic and are classified and returned to normal activities or to a particular special activity from which they may be restored to normality at any time conditions warrant. In addition the clinic makes a general mental examination of all first grade pupils at the beginning of each semester and classifies them in accordance with the results of these tests. This work clears through the director to the assistant superintendent in charge of elementary education.

This is shown in Chart IX.

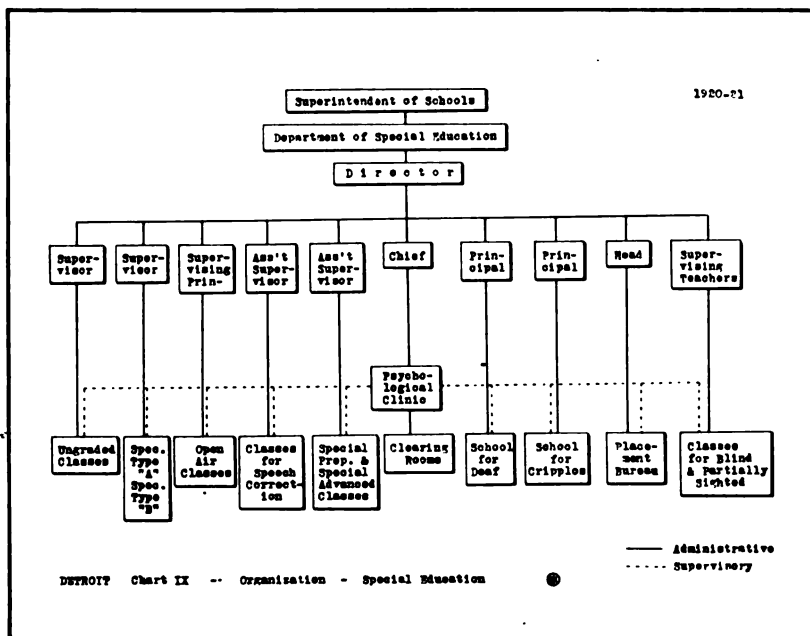


CHART IX

X. Statistics and Reference

This department embraces four activities (1) records, (2) publications, (3) reference, (4) administrative research. The record activities are only partially complete due to the separa-

tion of the child accounting department. They comprise at present the development of school and teachers' records and the organization of records within the schools.

The publications prepared by this department include the Detroit Educational Bulletin in regular, special and research numbers, the superintendent's report, the directory and by-laws, and the various courses of study, catalogs, etc.

In reference is included all requests for general or specific information relating to the school system.

Studies in administrative research have been and are constantly being made by this department.

This organization appears in Chart X.

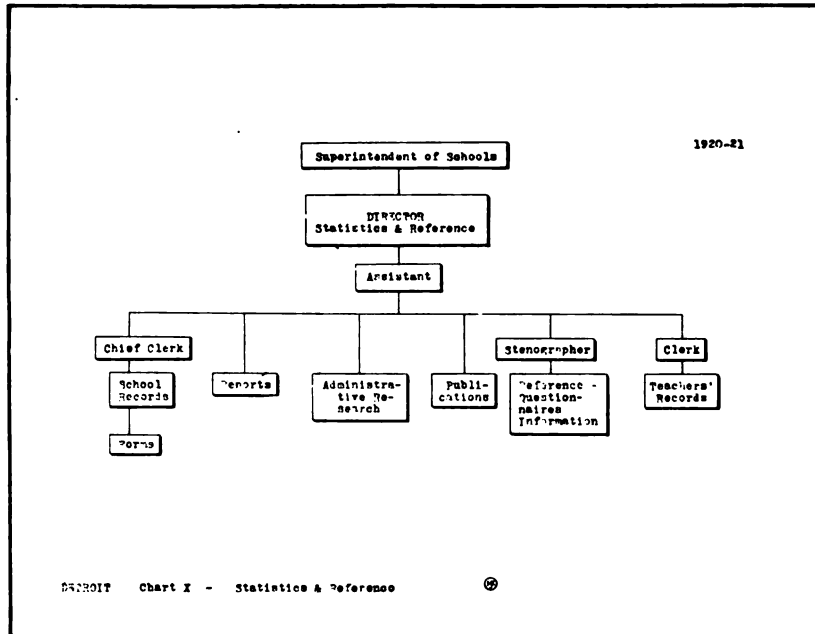


CHART X

XI. Educational Expenditures

The purpose of this department is to centralize and to control the expenditure of funds for educational purposes.

The funds so defined include the following:

1. Personal Services.
2. Furniture and Equipment.
3. Supplies.

Elementary School Auditorium



View From Stage



View Towards Stage

✓ The growth of the large city followed by the breaking down of the old neighborhood group has resulted in the development of serious social and political problems and has forced a greater burden upon the schools.

The technical demands are being met by the development of a socialized curriculum. In the wider social sense we are also convinced of the school's importance in rebuilding the neighborhood group, as a possible means of solving the city's social problems.

The school must then serve a two-fold purpose, first, as part of the machinery by which children are made fit for good citizenship, and, second, as a community rallying point. ✓

To perform these functions successfully the school must be developed as a complete plant from a teaching, mechanical and landscaping standpoint. It must be attractive to grown-ups as well as to children. It must be beautiful inside and out.

In reviewing our own schools it is impossible to avoid contrasts. In the congested districts the little children, sitting on curb or house steps, their world the block in which they live, see nothing inspiring or pleasant to look upon. The flowers and grass are absent. The school looms up as something larger but not prettier than the houses surrounding it.

There is another building in a different section. It was not constructed much later than the others and received no more attention from the authorities. But the person in charge had a vision of the meaning of the school to the neighborhood and interested the neighborhood in her idea. The response was good and the attractiveness of the exterior and interior of this building are a matter of general comment. The children play near the buildings at all times, but are careful not to spoil anything. It is their building and they have helped to make the grounds pretty. Upon a larger scale, it is their own yard.

These form two sharp contrasts. If the well kept, beautifully planted buildings were transferred to the congested neighborhood, is it not probable that it would furnish inspiration and pleasure to the solemn-eyed child whose life is rather circumscribed? Is it not probable that the tired mother, resting for a few minutes on her front steps, might take renewed courage

from the sight and grow to love the spot and the ideals for which it stands? It must be, for life without beauty becomes a sordid thing, groping blindly for any channel through which to satisfy the unknown craving.

The Board of Education has realized the social and academic importance of attractive interiors and pleasing exteriors, with plenty of room for playgrounds, lawn, shrubs and flowers. After careful and serious study of this vital problem, there has been created, within the Department of Architectural Engineering, divisions of Interior Design and of Landscape Gardening.

In future planning no unit will be considered complete until the interior is finished in pleasing color and the exterior is properly planted with sod, shrubs and proper plants. This will result in far more effective and attractive school plants.

LANDSCAPE SURVEY OF SCHOOLS

During the past year, a complete and careful survey has been made of the schools of Detroit from a purely landscape (development of grounds) point of view.

The first step in this work was to determine upon and secure photographs of what might be termed "type schools" or schools which were representative of a class.

A five table classification seemed most desirable and the following schools were chosen as fairly representative of the respective classes, not necessarily as being the best of each class.

Class A—Myra J.

Class B—Duane L.

Class C—Breitmeyer

Class D—H. School

Class E—O.

The classification of these five "type schools" as

The purpose of this survey to the conditions of the school grounds be improved and beautified as ra

Class A School*Jones***Class B Schools**

Burton
Clippert
Crosman

Estabrook
Doty
Ives

Lingemann
Teachers College
Moore

Pingree
Thirkell
Wingert

Class C Schools

Alger	Dwyer	Howe	Northwestern high
Bennett	Eastern high	Hubbard	Sampson
Breitmeyer	Franklin	Irving	Smith
Carpenter	Goldberg	Marxhausen	Thomas
Central high	Hely	Maybury	Tilden
Craft	Hillger	Northern high	Western high

Class D Schools

NEW BUILDINGS

Elementary School

These buildings contain the following buildings

The standard elementary plan developed in 1912-20 has been changed and improved in the following page

The standard elementary plan developed in 1912-20 has been changed and improved in the following page

Second Floor

- 2 Class Rooms, 30' x 40'
- 2 Boys' Toilets
- 2 Girls' Toilets, 30' x 40'
- 1 Science Room, 30' x 40'
- 1 Library, 30' x 40'
- 1 Covered Play Room, 30' x 40'
- 1 Teachers' Room
- 1 Sight Conservation Room (conservation room)

Third Floor

- 2 Class Rooms, 30' x 40'
- 1 Sun Room, 30' x 40'
- 2 Toilets
- 1 Clinic
- 1 Recitation Room, 30' x 40'
- 1 Dining Room, 30' x 40'

First Floor

- 22 Class Rooms, 22' x 30'
- 2 Girls' Toilets
- 2 Boys' Toilets
- 2 Kindergartens
- 2 Auditoriums, 30' x 32'
- 1 Medical Dept. (Clinic)
- 1 Manual Training Room, 30' x 21'
- 1 Administration Dept.
- 1 Admin. Room
- 1 Boiler Room
- 1 Boys' Lockers and Showers, 20' x 24'
- 1 Girls' Lockers and Showers, 20' x 24'



High School

Detroit high schools have been built heretofore with large grade rooms or houses. This policy has been changed and the new Southwestern high school, now under construction, will follow the home room plan of organization practiced in the elementary and Intermediate schools. The Southwestern floor plans are shown on the following insert. The school will care for 1,000 children and its accommodations follow:

Ground Floor

- 1 Plunge, 75' x 25'.
- 1 Boys' Shower Room, 11' x 34'.
- 1 Girls' Shower Room, 50 showers, 55' x 24'.
- 1 Girls' Locker Room, 227 Lockers, 55' x 34'.
- 1 Boys' Locker Room, 190 lockers, 48' x 34'.
- 4 Women and Men Teachers' Locker Rooms, 188 lockers.
- 2 Recitation Rooms.
- 1 Medical Dept., 26' x 37'; includes 3 offices—First Aid, Doctor, and Dentist.
- 1 Gymnasium Room.
- 1 Girls' Toilet Room.
- 6 Class Rooms, 25' x 22'.
- 1 Biology Laboratory, 40' x 22'.
- 1 Physics Laboratory, 31' x 22'.
- 6 Store Rooms.
- 1 Science Lecture Room, 18' x 22'.
- 1 Chemistry Laboratory, 37' 6" x 22'.
- 1 Women's Club Room, 27' 8" x 22'.
- 1 Auditorium, 74' x 45'.
- 1 Men's Club Room, 27' 8" x 22'.
- 1 Mechanical Drawing, 29' 6" x 22'.
- Advanced Machine Shop, 39' 4" x 23'.
- Boys' Toilet.

- 1 Administration; offices 39' x 22' (includes 8 separate offices for department heads and principals).
- 1 Conservatory.
- 1 Janitor.

Second Floor

- 1 Gymnasium, 90' x 60'.
- 1 Music Room, 35' 6" x 20'.
- 1 Cooking Room, 41' x 22'.
- 1 Girls' Toilet.
- 2 Sewing Rooms, 30' x 22'.
- 2 Consultation Rooms.
- 1 Art and Design, 30' x 21' 6".
- 10 Class Rooms, 26' x 22'.
- 1 Library, 66' x 23'.
- 1 Typewriting Room, 27' x 22'.
- 1 Bookkeeping Room, 39' x 22'.
- 1 Mechanical Devices Room, 20' x 13' 6".
- 1 Boys' Toilet.
- 2 Physical Directors' Rooms.
- 2 Examination Rooms.
- 2 Janitors' Rooms.

Third Floor

- Teachers' Dining Room, 18' 6" x 18' 0".
- Lunch Room, 53' 0" x 39' 0".

High School

Detroit high schools have been built heretofore with large grade rooms or houses. This policy has been changed and the new Southwestern high school, now under construction, will follow the home room plan of organization practiced in the elementary and Intermediate schools. The Southwestern floor plans are shown on the following insert. The school will care for 1,000 children and its accommodations follow:

Ground Floor

- 1 Plunge, 75' x 25'
- 1 Boys' Shower Room 11' x 14'

- 1 Administration; offices 39' x 22' (includes 8 separate offices for department heads and 10 teachers)

PART VI—FINANCIAL REPORT

The accompanying reports have been prepared from the cost records of the Board of Education, for the fiscal year ended June 30, 1921.

The total cash available during the year amounted to \$20,400,532.47. The expenditures for various purposes totaled \$21,096,177.24, while the transfers to invested funds amounted to \$773,336.15, resulting in an overdraft at the close of the year of \$1,468,980.92.

During the ten months of the school year the average monthly disbursements for the cost of instruction, operation and maintenance of the school system amounted to \$1,133,838.05, while disbursements for improvement work total \$768,910.10, or a gross monthly average of \$1,902,748.15 for all purposes.

Table XXXVII—Percentage of Cost

The different elements of yearly cost contained in the conduct of the school plant are as follows:

Division of Cost	Amount	Percentages
Administration (including Supervision)	\$ 643,541.78	5.7
Instruction	8,875,957.78	78.2
Operation	1,398,435.05	12.3
Maintenance	265,496.34	2.3
Auxiliary Agencies and Sundry Activities	103,568.73	.9
Expenses of Fixed Charges	57,967.49	.5
Repayment of Loans	15,000.00	.1
Total Conduct of School Plant	\$11,359,967.17	100.0%

Administration

Educational and business administration consists of the salaries and supplies of the superintendent, assistant superintendents, supervisors, business manager and clerks in these offices. Excluding supervision, this does not exceed 4.3% of the maintenance expenditures.

Instruction Cost

Teaching cost and administrative school cost has been set up so as to show the two elements of instruction cost separately. Teaching cost consists of teachers' salaries and supplies used in teaching. Salaries of the principals, grade principals, clerks, bookkeepers, librarians and administrative school supplies constitute the administrative school cost. A comparative per capita cost of instruction is included in these reports. The median percentage of the maintenance expenditures devoted to instruction in the country is 75%. Detroit is well above this amount.

Operation Cost

The operation cost consists of engineers' and janitors' salaries, supplies, gas, electricity and fuel. The operation cost was somewhat higher than usual owing to the conditions prevailing in the fuel market.

Maintenance Cost

Maintenance cost consists of repairs to buildings and equipment, replacement of equipment, insurance and still alarm service.



Table XXXVIII—Balance Sheet as of June 30, 1921**ASSETS APPLICABLE TO APPROPRIATION RESERVES AND TRUST ACCOUNTS**

Cash—City Treasurer (Trust Accounts).....	\$5,558.03	
Authorized and Unsold Bonds.....	18,804,542.70	
Smith-Hughes Fund—Deficit 1920-1921.....	2,053.00	
Estimated Receipts, 1919-1920.....	20,000.00	
School for Deaf Refund 1920-1921.....	16,000.00	
1921-1922 Appropriations for 1920-1921 Deficits	2,078,784.74	
Total.....		\$20,926,938.47

REAL AND PERSONAL PROPERTY

General and Equipment Stores.....	114,978.04	
High School Stores.....	8,319.36	
Text Books and Supplies in Schools.....	196,260.82	
Additions to Land, Buildings, Equipments and Improvements for the year ending June 30, 1921.....	9,172,536.08	
Land, Building and Equipments June 30, 1920..	21,609,941.27	
Total.....		31,102,035.57
Petty Cash.....	4,300.00	
Unexpired Insurance Premiums.....	1,294.53	
Unclaimed Wages.....	4,219.83	
Total.....		9,814.36
Total Assets.....		\$52,038,788.40

LIABILITIES RESERVES TO BE PAID OUT OF APPROPRIATION AND TRUST ACCOUNT ASSETS

Accounts Payable—Maintenance Fund.....	45,928.82	
Accounts Payable—Building Fund.....	7,131,445.61	
Payrolls Payable.....	46,226.33	
Reserves for Appropriation Balances Transferred to 1921-1922.....	9,675,374.20	
Reserves for Appropriation Surpluses.....	19,832.77	
Reserves for Evening High School Fee Fund...	16,268.09	
Reserves to pay Teachers Additional Salary...	359,327.42	
Reserves for Teachers Institute Fee Fund (a).....	2,200.00	
Reserves for Scripps Memorial Fund..... (a)	3,358.03	
Assets Applicable to the conduct of the School plant..... (b).....	79,211.59	
Loan and Advances due City of Detroit..... (c).....	3,547,765.66	
Total.....		\$20,926,938.52

SURPLUS REAL AND PERSONAL PROPERTY (Disbursed as Follows)

Investment of the Board of Education.....		31,102,035.57
Reserves for Contingent Expenditures.....	4,300.00	
Reserves for Unaccrued Insurance Premiums...	1,294.53	
Reserves for Unclaimed Wages.....	4,219.83	
Total.....		9,814.36
Total Liabilities.....		\$52,038,788.45
(a) Trusts Accounts.....		
(b) Surplus Primary School Money.....		
(c) Overdraft Board of Education Fund.....	0.92	
Advances by Committee.....	74	
Loan.....		

Table XXXIX—Statement of the Cash Disbursements for the year ending June 30, 1921

Cash Disbursements for July 1920.....	\$ 706,924.50
Cash Disbursements for August 1920.....	682,529.97
Cash Disbursements for September 1920.....	1,609,384.43
Cash Disbursements for October 1920.....	1,763,543.75
Cash Disbursements for November 1920.....	1,909,125.06
Cash Disbursements for December 1920.....	2,112,298.75
Cash Disbursements for January 1921.....	1,791,485.63
Cash Disbursements for February 1921.....	1,930,618.91
Cash Disbursements for March 1921.....	1,878,217.87
Cash Disbursements for April 1921.....	2,580,250.67
Cash Disbursements for May 1921.....	1,972,630.04
Cash Disbursements for June 1921.....	2,159,167.66
Total Cash Disbursements.....	\$21,096,177.24

Disbursed as follows

Conduct of the School Plant.....		\$11,344,967.17
Deficit Primary Money.....		196,649.45
Repayment of Loan.....		15,000.00
Evening High School Fees Refunded.....		29,597.14
Institute Fees.....		2,436.00
Stores Purchases.....	\$1,043,275.06	
Less Stores Disbursements.....	775,298.52	267,977.54
High School Stores Purchased.....		122,537.32
Building Fund Disbursements		
Purchase of Land.....	1,388,721.97	
Improvements to site.....	91,350.99	
Building under Construction.....	6,424,605.22	
Equipments (exclusive of books, maps and charts).....	787,727.77	
Equipments (books, maps and charts).....	74,025.76	
Improvements to Buildings.....	406,104.37	9,172,536.08
Total.....		\$21,151,700.70
Deduct items in the July 1920 disbursements that were absorbed in the 1919-1920 Cost of the Conduct of the school plant.....		55,523.46
Total Cash Disbursements.....		\$21,096,177.24

Auxiliary Agencies and Sundry Activities

Baths

Salaries.....	\$	49,776.37	
Supplies.....		1,521.00	
Towels.....		9,334.03	
Fuel.....		6,435.41	\$67,066.81

Parental School

Salaries.....		2,095.00	
Supplies.....		689.21	
Lunches.....		2,031.45	4,815.66

Lunches Special Education

Salaries.....		10,697.25	
Supplies.....		12,709.51	23,406.76

Transportation of Pupils			8,279.50
--------------------------------	--	--	----------

Total.....			\$103,568.73
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Fixed Charges

Insurance on Materials and Stores.....	\$	3,444.44	
Personal Injury Claims.....		74.50	
Stationery and Supplies for Teachers Retirement Fund.....		213.19	
Rent.....		39,037.87	
Miscellaneous.....		15,197.49	\$57,967.49
Repayment of Loans.....			\$15,000.00



Pattengill Elementary School

Table XLII—Statement of the Student Hour and Per Capita Cost for the year ending June 30, 1921

Schools	Teaching Cost	Administrative School Cost	Total Instruction Cost	Operation	Maintenance	Business Administration	Educational Administration	Total Cost	Average Membership	Total Student Hours
Elementary*	\$4,272,375.99	\$ 762,532.08	\$5,034,908.07	\$ 809,729.62	\$174,373.24	\$ 87,965.90	\$317,465.42	\$6,424,442.25	90,251	68,194,577
Intermediate**	1,586,363.57	247,666.21	1,834,029.78	349,129.61	57,349.30	10,547.98	70,547.87	2,330,504.54	20,549	17,324,661
Comprehensive High†	764,160.05	120,706.00	884,866.05	145,270.86	20,063.46	6,981.43	25,195.68	1,082,277.48	6,556	4,392,380
Care Tech***	405,169.43	47,215.86	452,385.29	75,049.84	6,281.34	2,792.57	10,078.27	547,487.31	3,480	2,608,444
Wilkins High School of Commerce	60,843.66	12,388.41	73,232.07	6,057.47	1,189.16	1,390.28	5,039.13	83,914.11	899	550,396
Detroit Teachers College††	.....	.....	91,979.64	4,127.84	2,313.80	558.51	2,015.65	100,955.44	407	227,989
Det. Junior College	.....	.....	101,231.36	.....	.....	698.14	2,519.57	104,449.07	707	427,237
Det. Coll. of Medicine and Surgery	.....	.....	70,242.92	7,808.98	3,126.04	139.63	503.91	81,911.48	171	.....
Evening Schools	.....	.....	200,004.87	.....	.....	11,170.27	40,313.07	251,488.21	11,400	1,269,410
Summer Schools	.....	.....	124,077.73	.....	.....	8,377.70	30,234.90	162,690.23	7,888	.....
Aux. Agencies and Expenses of Field Charges	.....	.....	.....	.....	.....	.....	.....	176,536.22	.....	.....
Operating Dept.	.....	.....	.....	270.83	.....	.....	.....	270.83	.....	.....
Totals	\$7,097,912.70	\$1,190,508.56	\$8,875,057.78	\$1,398,435.05	\$265,496.34	\$139,628.41	\$503,913.37	\$11,359,997.17	142,314	95,011,064

*Includes elementary grades 1 to 6, kindergarten and special classes.

**Grades 7-8-9.

***Grades 10-11-12.

††Includes information, teacher placement and supervision.



Foreign Mothers' Class
(Russell School)



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SEVENTY-NINTH ANNUAL REPORT

of the

Superintendent of Schools



Published by the Authority of the
Board of Education
City of Detroit
1922



Miller Intermediate—Entrance Detail

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LETTER OF TRANSMITTAL

July 15, 1922.

To the Honorable Board of Education,
City of Detroit.

I am submitting the Seventy-ninth Annual Report of the Detroit Public Schools for the school year ending June 30, 1922. This falls into the following divisions: Part I, Statement of Growth; Part II, Policy; Part III, Progress; Part IV, Organization; Part V, Buildings; Part VI, Finance, and Part VII, Statistical Studies.

Very respectfully,

FRANK CODY,

Superintendent of Schools.

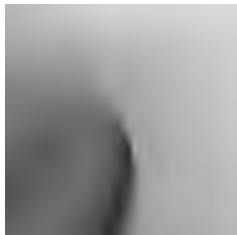


Table 1—School Membership

Month	1919-20	1920-21	1921-22	Increase 1921-22 over 1920-21	
				No.	%
September	112,806	119,688	134,390	14,702	12.2
October	115,117	122,059	136,416	14,357	11.7
November	116,284	122,690	136,930	14,240	11.6
December	115,790	122,529	135,497	12,968	10.6
January	115,367	122,370	135,622	13,252	10.8
February	113,699	124,514	137,587	13,073	10.5
March	115,591	125,885	137,902	12,017	9.6
April	115,444	125,911	137,949	12,038	9.6
May	113,844	124,812	136,908	12,096	9.7
June	110,019	123,155	134,083	10,928	8.9

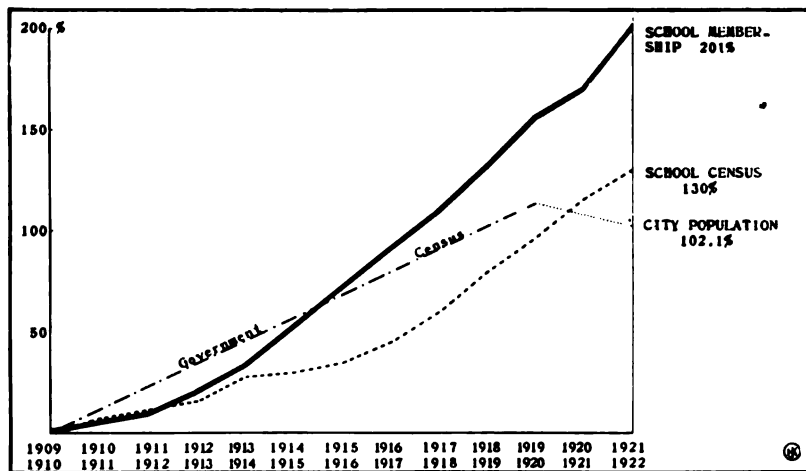
GROWTH OF CITY AND SCHOOLS BY YEARS**Diagram 2**

Diagram 2 shows the growth of the Detroit public schools in relation to the city as a whole.

The total city growth between 1910 and 1920 was 113.4%.

The total increase in the school census (all persons between 5 and 20 years) between 1910 and 1921 was 130%.

The increase in school membership (children in actual daily attendance) between 1910 and November, 1921, was 201%.

While the city as a whole doubled, and the school census increased 130%, the actual number of children in public schools increased 201%, or more than trebled during this decade.

In 1910 the membership was 44% of the school census. In 1921 the public school membership was 57% of the school census, which means that 13% more children of school age were in attendance.

This increase in attendance is due to many factors, among which are (1) operation of compulsory education laws, (2) the continuation laws, (3) better adjustment of schools to the needs of the children, (4) a growing realization on the part of parents that education is worth while, and (5) that in Detroit the number of children is increasing in greater proportion than adults.

HALF-DAY SESSIONS

Half day sessions are decreasing. There were 10,633 fewer children on part time in September 1921 than in September 1920. In May 1922 there were 6,764 fewer on part time than in May 1921. These data are shown in the table and diagram.

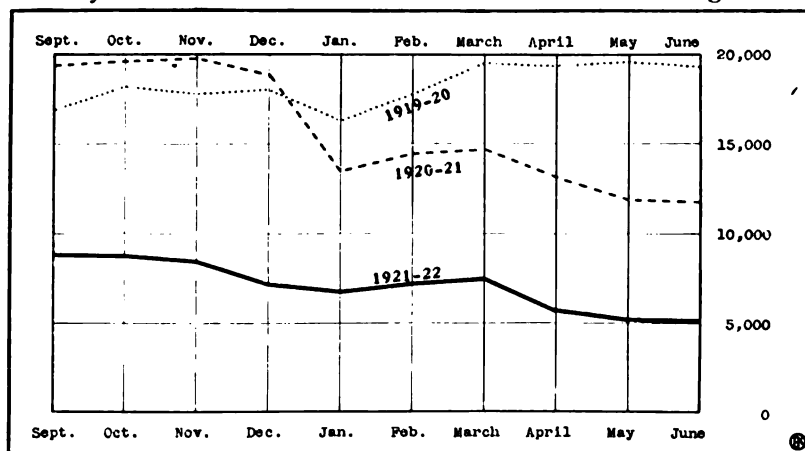


Diagram 3

Table 2—Number of Children on Half-day Sessions

Month	1919-20	1920-21	1921-22
September	16,900	19,414	8,781
October	18,193	19,646	8,747
November	17,795	19,819	8,444
December	18,056	18,903	7,144
January	16,270	13,465	6,764
February	17,809	14,449	7,168
March	19,554	14,691	7,450
April	19,408	13,175	5,649
May	19,581	11,891	5,127
June	19,338	11,811	5,109

ANNUAL REPORT

TEACHER SALARIES

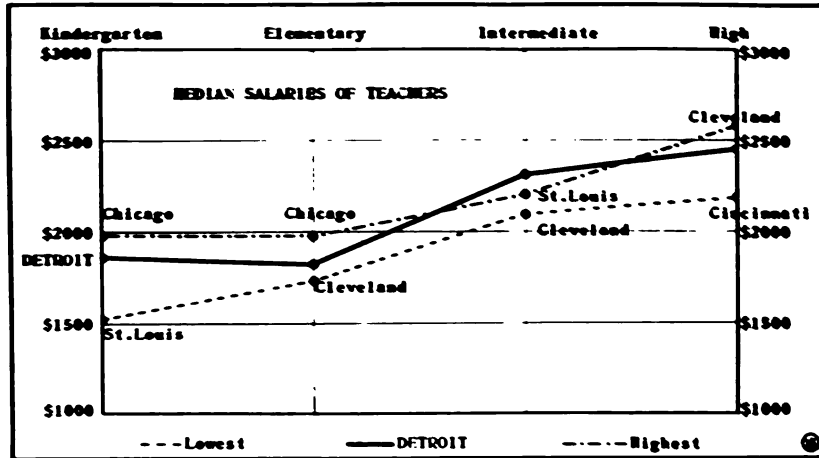


Diagram 5—Salaries of Teachers

Detroit ranks second in median salaries paid kindergarten teachers; fourth in the case of elementary teachers; first in respect to intermediate teachers, and third as regards high school teachers. These data appear in the following table.

Table 7—Salaries of Teachers

	1st Quartile	Median	3rd Quartile
Kindergarten Teachers			
Chicago	1475	1975	1975
DETROIT	1729	1860	1933
Cincinnati	1613	1721	1904
Cleveland	1560	1680	1970
St. Louis	1502	1520	1832
Elementary Teachers			
Chicago	1475	1975	1975
Cincinnati	1601	1879	2021
St. Louis	1536	1823	1953
DETROIT	1637	1814	1933
Cleveland	1502	1732	2030
Intermediate Teachers			
DETROIT	2020	2312	2490
St. Louis	2011	2202	2337
Cleveland	1755	2090	2300
High School Teachers			
Cleveland	2180	2570	3030
St. Louis	2317	2527	2872
DETROIT	2124	2448	2665
Chicago	2183	2350	2616
Cincinnati	1914	2182	2711

PRINCIPAL SALARIES

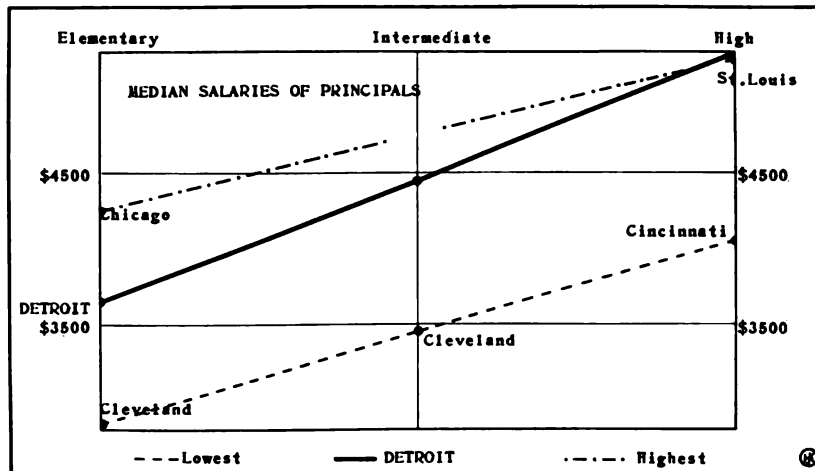


Diagram 6—Salaries of Principals

Detroit ranks third in the median salaries paid elementary school principals, just behind Chicago and St. Louis.

There are only two cities to be compared in the intermediate group and Detroit ranks first.

Detroit and Chicago rank second to St. Louis in respect to salaries paid high school principals.

These data, together with the quartile ranges appear in the following table.

Table 8—Salaries of Principals

	1st Quartile	Median	3rd Quartile
Elementary Principals			
Chicago	3700	4250	4250
St. Louis	3150	4006	4054
DETROIT	3237	3648	4057
Cincinnati	2916	3180	3518
Cleveland	2655	2840	2970
Intermediate Principals			
DETROIT	4225	4450	4537
Cleveland	3285	3450	3500
High School Principals			
St. Louis	4850	5050	5062
DETROIT	5000	5000	5500
Chicago	4800	5000	5100
Cleveland	4200	4600	4800
Cincinnati	3325	4050	4525

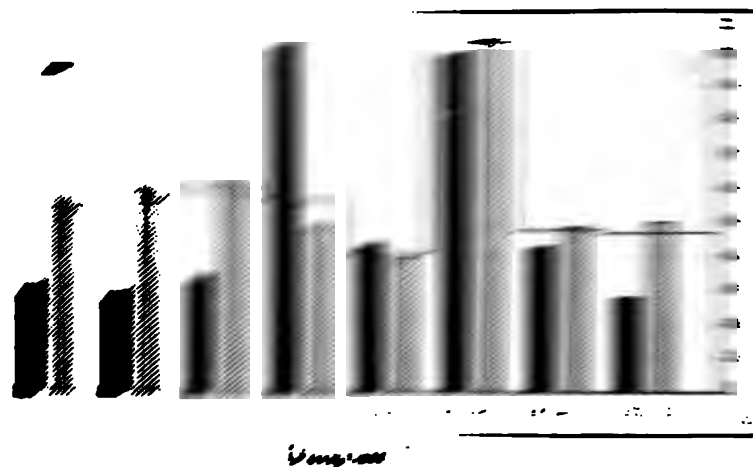


Fig. 1. Distribution of Teachers by Years of Experience.

Years of Experience	Number of Teachers	Percentage of Total	Years of Experience	Number of Teachers	Percentage of Total
0-5	15	1.5%	10-15	85	8.5%
5-10	25	2.5%	15-20	75	7.5%
10-15	85	8.5%	20+	45	4.5%
15-20	75	7.5%			
20+	45	4.5%			

TEACHER INCREASE

The number of regular teachers increased 191, or 4.6%. The number in addition to regular substitute teachers, making a total of new teaching positions 136.

CHILDREN'S MUSEUM EXHIBITS**Cotton Exhibit****Indian Collection**

Part II—Policy

THE general educational policies in force are a continuation of those adopted in 1919-20, providing for an ultimate organization upon the 6-3-3 plan. Briefly these call for the establishment of:

- a. The platoon elementary schools, with their socialized curriculum, for the first six grades.
 - b. Large intermediate schools, grades 7-8-9, with socialized and differentiated curriculum, to meet the needs of adolescent children.
 - c. Senior comprehensive high schools, grades 10-11-12, with socialized and differentiated curriculum, and vocational guidance.
2. In the consideration of the public school housing program the Board of Education has followed these policies:
- a. To provide every child with a full day session.
 - b. To remove all pupils from rented quarters totally unsuited to their needs and requirements.
 - c. To remove all pupils from damp, poorly lighted basement rooms.
 - d. To eliminate as early as possible the risk of fire danger in three-story elementary schools which were built 50 years ago of highly combustible materials.

e. To provide each pupil with the full advantages of education in class rooms in which there are not over 40 pupils.

f. To require no pupil to attend school in cheaply built and equipped frame temporaries, except as a temporary expedient.

g. To provide for growth in school membership in each budget.

These policies have served as guides in the formulation of past budgets. Up to the present the Board of Education has not attempted to go beyond the minimum requirements, which allow only for growth, half-day sessions, and some of the most objectionable housing conditions. By 1923 most of the temporary buildings will still be in operation, not all of the 50-year-old buildings will have been discarded, nor probably all the basement rooms or overcrowded classes.

3. Reorganization of any unit or department is preceded by intensive survey or study and developed in relation to the general policy.

4. The development of the supervisor as a purely instructional officer free from administrative duties.

5. The development of the principal in elementary, intermediate and high schools primarily as a supervising officer, devoting most of his time to instruction.

6. The high school teaching load has been defined as follows:

a. The working day of a high school teacher shall not be less than eight class periods.

b. The teaching load of all teachers except those in Health Education shall be fixed at a minimum of five hundred and sixty-two (562) student hours weekly. This may be translated into class loads as follows:

1. Five forty-five minute classes of thirty (30) pupils each, or

2. Six forty-five minute classes of twenty-five (25) pupils each.

c. The minimum load of teachers in health education shall be thirteen hundred and fifty (1,350) student hours weekly. This may be translated into

1. Six forty-five minute classes of sixty (60) pupils each.

d. The teaching load of department heads shall be fixed at four hundred and fifty (450) student hours weekly, which may be translated into

1. Four forty-five minute classes of thirty (30) students each, or

2. Five forty-five minute classes of twenty-five (25) students each,

provided that if the head of a department has under his direction 15 or more teachers, he shall teach three forty-five minute classes of 30 students each or four forty-five minute classes of 25 students each.

e. The teaching load of grade or house principals shall be fixed at:

1. Two forty-five minute classes of thirty (30) students each, if the house membership is less than 200.

2. One forty-five minute class of thirty (30) students if the house membership is between 200 and 300.

3. If the house membership is greater than 300 the house principal will not be expected to teach.

f. Any teacher or department head may be assigned to any other instructional or non-instructional activity by the principal during the two free periods remaining.

g. A luncheon period of at least thirty minutes shall be arranged for each teacher, exclusive of the eight class periods.



A Few Elementary School Publications

Part III—Progress

THE 1921-22 progress report of the Detroit public schools follows:

ADMINISTRATION

1. Twenty-three elementary buildings and additions with a total pupil capacity of 10,680 were put into operation.

2. Two new intermediate schools, the Barbour and Hutchins, and additions to the McMichael gave an added pupil capacity of 3,480.

3. The Southwestern high school, capacity 800, was opened during the second semester.

4. Two special units, an addition to the Leland school for cripples and the Maybee open air school, were opened.

5. A survey of Vocational Education in Detroit was made with specific recommendations regarding the organization of work in the new Cass Technical high school.

6. A survey of the Detroit Junior College and Central high school building was undertaken and specific recommendations made for the organization of these units.

7. The 1922-23 budget was prepared in accordance with the accepted procedure. It was possible to review supply, equipment and personal service requests much more closely than heretofore because of tentative standards set up and supporting data accumulated during the last two years.

8. Standard lists of supplies for all activities with standard allowances for over 4,000 articles of supplies have been made.

9. Standard equipment lists have been formulated for the following types of rooms: administrative office, classroom, kindergarten, library, science room, auditorium, domestic science, sewing room, gymnasium, rest room, manual training room, household mechanics, and mechanical drawing.

10. A survey of the various agencies for transferring teachers in the elementary, intermediate and high schools, was completed. The responsibility for all such activities is now lodged in the hands of the Director of Probationary Teachers.

11. A plan was established whereby teachers may systematically contribute to the city-wide instructional activities of the schools. Teachers making such contributions are recognized by (a) such materials being used as evidences for promotion, (b) credit at Detroit Teachers College, (c) materials distributed over the contributor's name.

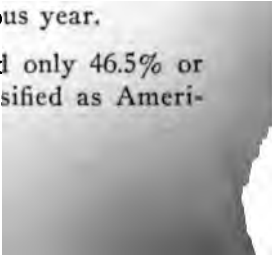
12. The supervisory group was further organized and consolidated by (a) the assignment of a director and assistant director of languages, including the departments of English, reading-kindergarten, penmanship, libraries, modern languages, and auditoriums, (b) the designation of definite responsibilities to each supervisor, (c) a careful and detailed analysis of supervisory activities, in order that time and effort may be saved at strategic points, and (d) an extension and consolidation of instructional activities in the intermediate and high school field.

13. Research studies made and published as research and special bulletins include the Age-Grade and Nationality Survey, Flunkage Study, Analysis of the 1922-23 Budget, The Intermediate School in Detroit, Health of Teachers, and Pre-Medical Education in the United States.

14. The organization of Parent-Teacher Associations was definitely encouraged. In September, 1921, there were nine such organizations. In June there was a total of 54, including five in high schools and two in intermediate schools. Nine of these organizations have not yet affiliated with the national association but will do so next year.

15. Increasing interest was shown in the use of school buildings by outside organizations. The number of such requests granted was 893 in contrast to 385 in the previous year.

16. The annual nationality survey showed only 46.5% or 59,965 of the September 1921 membership classified as Americans.



17. A second study of standards of growth of school children was undertaken, the results of which will be published at a later date.

18. The character of the engineering and janitorial forces has been raised. The working hours of the janitorial force have been readjusted and the cleaning is now done after school hours.

19. The bath centers have been transferred to the division of plant operation and the schedule of operation reorganized to secure more effective results.

20. It was possible to pick all of the new elementary teachers for 1922-23 from the upper one-third of the state normal school June graduates by making an earlier selection than usual.

21. A remarkable interest in professional advancement has been shown by the Detroit teachers. During the year 65% of the elementary, 57% of the intermediate, and 18% of the high school teachers took advance work at Teachers College. In addition to the teachers, administrative officers of the several divisions were registered as follows: elementary, 68%; intermediate, 50%, and high school, 19%.

22. A second Know-Your-School Week was conducted by the Detroit Teachers Association, in which 158 schools participated. The attendance of parents was reported as 71,973 of whom one-third were men.

23. A monthly letter through which an attempt was made to bring the work of the schools closer to the home, was published for parents by the superintendent. This bulletin was discussed first by the children as a classroom project and then taken to the parents. Numerous letters from parents reflected the interest aroused.

24. During the school year the psychological clinic examined all pupils entering the first grade, over-age and backward pupils in all elementary schools, pupils from certain grades who were candidates for special laboratory and special advanced classes, various groups of the intermediate and high schools, and a selection of pupils of mental ability, special groups of pupils, and others. The request of the

principals or at the request of the supervisory departments for purposes of experiment, and new teachers and applicants for clerical positions, by the use of group intelligence tests.

25. Important studies by the psychological clinic have been as follows: correlation of the Detroit First Grade Intelligence Test with mental age as established by the Stanford-Binet Test; relation between scores in the Detroit First Grade Test and the new Detroit Kindergarten Test; tabulation of data for the report on the "X," "Y," "Z" classification; the relation between scores in the group intelligence test and scholarship marks; relation between intelligence test scores and scores in educational measurement tests, and the results obtained by making definite use of intelligence test scores in the promotion of pupils and the organizing of groups in the Dwyer school.

26. The psychological clinic extended the participation in the use of group intelligence tests throughout the schools by training a number of teachers for this work, which hitherto has been restricted to members of the clinic staff. The training is provided by evening courses in the Detroit Teachers College.

27. In the territory of each district principal a regular room for some class belonging to the Department of Special Education has been designated as a clearing room for schools in that district. Principals may transfer disciplinary cases to clearing rooms at any time and avoid the delay necessary in arranging an examination at the psychological clinic. These rooms are visited weekly by an examiner.

28. Special diagnostic examinations have been given to 316 pupils. One or more tests were given to each pupil depending on the difficulties which he presented. Most of the pupils tested in this manner were slightly backward in intelligence but had some special disability which prevented them from making satisfactory school progress.

29. A system of textbook accounting was established involving: (a) a study of the number of books in the schools by grade, school and title, (b) the standard of minimum textbook equipment for the various classrooms and types of schools, (c) the revision of standards of distribution for textbook and sup-

plementary books, and, (d) the revision of lists of books in use.

30. Studies have been made of the problem of training girls in child-care; of girls' organizations in high schools; of the cause of delinquency and means of prevention (through Juvenile Court); of co-operation between women's clubs and schools, with suggestions for closer co-ordination; of girls over 16 in continuation classes with a view to determining types of training; of reasoning ability in girls, and of character education.

31. Close co-operation between the public schools and the Detroit Symphony Orchestra was developed and 38 school concerts were given. The total attendance was 20,000 persons of whom the great majority had never heard a symphony orchestra. This work has been of great value as a community educational factor.

32. The fourth annual educational conference was held in May. Twenty-nine research studies made by principals and teachers were presented. These will be published during 1922-23 in the *Detroit Journal of Education*.

The Vocational Bureau

1. The Vocational Bureau was organized in September, 1921, with three divisions: permit, placement and information.

2. The permit division has taken over the work of granting employment permits, a function formerly performed by the attendance department, and has developed a plan for the investigation of all requests for exemption from attendance at part-time schools.

3. The placement division of the bureau, up to April 30, 1922, assisted 1,613 boys and girls to find employment. During May the number placed each week was about 100.

4. During the month of April the number of individuals who called at the permit and placement divisions of the bureau was 2,459. This included parents, employers and visitors as well as pupils seeking employment.

5. The information division has developed its work along the following lines:

- a. Gathering information concerning Detroit occupations and preparing this information for the use of counselors and teachers.

b. Gathering information concerning schools in Detroit that offer vocational courses of any kind and preparing this information for use by counselors and teachers.

c. Assisting school counselors in working out an adequate program of educational and vocational counseling.

d. Providing a clearance office through which arrangements are made for all visits to industrial plants by teachers and classes, thus eliminating confusion.

6. During the year 200 placements have been made by the Placement Bureau of the Department of Special Education. The follow-up of Special B girls has been emphasized this year. Two hundred girls with employment records for a few months to five years have been followed up. Girls trained at the Miller Cafeteria Training Class were placed. To date 40 girls have been trained to take lunch room and housework jobs.


SUPERVISION

Health Education

1. The aim is to give the child increased physical ability, to insure normal growth, to decrease illness, to avoid accidents, to overcome defects, and to make possible an abundance of energy and vitality. The activities used are grouped under five headings:

1. Plays, games, rhythmic dances and gymnastics.
2. Competitive athletics.
3. Health instruction.
4. Boy scouting.
5. Safety education.

2. Plays, games, rhythmic dances, and gymnastics are given from the first grade through college for thirty to sixty minutes per day, according to the grade of the child and type of school. Trained teachers have the responsibility of instructing children in how to enjoy and get the best results from exercise. In the lower grades, this time is given to singing, dramatic and group games, and individual expression of physical ability. From the sixth grade through college this develops into higher forms of group games, more difficult individual and group performances, and is supplemented by "stunts" and contests, and gymnastic exercises



adapted to the needs of the body in gaining energy and vitality through increased motor control.

3. There is a group of children needing individual attention because of physical defects more marked than in the average child. These children are discovered with the co-operation of the City Health department, by the rank and file of school teachers and by specially trained teachers of individual gymnastics.

4. The field of competitive athletics, embracing the activities of boys and girls, extends from the sixth grade through college. In this field the great aim is to direct the natural surplus energy into constructive channels which will help to fit the child into society.

5. A course of study has been written and experimented with in three schools. This course is divided into six sections: (1) normal growth, (2) physical ability, (3) illness, (4) safety, (5) defects and (6) energy and vitality. Each of these sections is related in turn to the following contributing factors: food, rest, air, exercise, cleanliness, clothing, posture, leisure time, and state of mind.

6. Through the Field Scout Executive, who is a member of the Health Education department, the Boy Scout school troops are organized and connected up with the city scout headquarters.

7. The aim of safety education is to educate school children in the principles and practice of accident prevention and thus save lives and property. The principal activities engaged in are as follows:

a. A constant research into the accident situation is carried on by making use of reports received from the Detroit Police Department, of accidental death statistics obtained from local and state health departments, of newspaper and magazine articles and civic reports.

b. Preparation of a better course of study in safety education is under way.

c. Assistance is given to principals and teachers who ask for help in improving the quality of their safety work or in forming school safety organizations.

d. Dangerous situations relating to traffic or school welfare are handled.

e. Co-operation is given to many local organizations, principally the Police Department, the Fire Department, the Board of Health, the Recreation Commission, the Detroit Automobile Club, the Detroit Safety Council, the Women's Safety Committee of the Board of Commerce, the Parent-Teacher Associations and the Committee on Nursing Activities of the Detroit Chapter of the American Red Cross.

f. Outside service has been rendered the Highway and Highway Transport Education Committee of the United States Bureau of Education, the National Safety Council, the Safety Institute of America, the Michigan State League of Nursing Education, the State Board of the Parent-Teacher Associations, the Associated Press and innumerable principals, teachers, civic officials and industrial interests whose requests for information on Detroit's safety work have come from 44 different states.

g. Talks on safety education have been given at Boston, Mass., Salem, Mass., Bethlehem, Pa., Buffalo, N. Y., the University of Kentucky, Allentown, Pa., Kalamazoo, Flint, Port Huron, Ann Arbor, as well as in many schools, churches and clubs in Detroit.

Language Education

1. Meetings were held for training *English* teachers in evaluating *compositions*. It is necessary to bring about some uniformity of judgment in regard to children's compositions, for pupils, in transferring from one school or room to another, are apt to be judged by different standards and subjected to delay and misunderstanding, resulting in unmerited retardation.

2. A new and improved apportionment of books was made.

3. Meetings of teachers for observation and discussion of lessons have been held and visits made to schools, at the request of principals, to give needed help to new teachers and teachers new to their grade as well as visits to selected teachers who are helping in the development of improved methods.


4. Standard composition tests were given in grades 4 to 8 in September, 1921, and in January, 1922. City medians were thus obtained showing in a general way conditions in the different grades and average growth in composition ability from grade to grade.

5. An experiment in a socialized recitation in English was initiated in September, 1921. The method to be developed involves: (a) a definite social purpose for all oral and written composition; (b) discovery by pupils of their own individual defects and conscious effort to devise means of overcoming them; (c) provision for individual differences; (d) discovery by pupils of the relation of grammar to effective expression; and (e) development of desirable purposes, habits, ideals and attitudes.

6. Experimental work in *spelling* has resulted in new methods of procedure in teaching the subject. The problem involved was to develop control of spelling in all written work when attention was being directed to the thought rather than to spelling specifically, and to do this through self-directed activities that would produce effective habits of work and qualities of initiative, self-control, self-appraisal, resourcefulness and thoroughness as well as spelling control. Data based on individual diagnoses by 2,086 pupils show that two-thirds of the difficulties are matters of incorrect perceptions and lack of writing control. Even with method as the main objective and score the by-product, the median per cent of possible gain made by 60 experimental classes exceeded the city gain by 5 per cent.

7. Three hundred teachers are now working with the new method. Comparative data on score are not yet available, but teachers and principals report a very satisfactory change in the pupils' attitude toward the value of spelling and a decided growth in independent thought and action.

8. Tests for determining existing degrees of *literary appreciation* and of measuring growth of such appreciation from grade to grade have been constructed. The method of test construction for story appreciation involved the preparation of seven versions of varying degrees of literary merit for each of two stories. These versions were revised until rating by large numbers of adults, including students at Teachers College and grad-



uate teachers, determined arrangement and parallelism of the two series of versions. The ultimate purpose of this experiment is to devise methods for stimulating real appreciation of ideas and style in literature. Two parallel tests for measuring appreciation of poetry have been prepared. The first test has been given in twenty schools and results tabulated. When the second test has been given a specific study of data will be made.

9. During the school year 1921-1922 the chief development in the *library department* has been in the establishment of new libraries. Twenty-two rooms in platoon schools were equipped with library teacher, books, furniture, and supplies, September, 1921. Seven rooms in platoon schools were equipped with library teacher and a few books, February, 1922. Two rooms in intermediate schools were equipped with librarian, books, furniture, and supplies, February, 1922. Of the 33 teachers, 22 have been wholly or partially trained at Detroit Teachers College.

10. In the platoon schools children above grade 2A spend two periods a week in the library, where they receive incidental instruction in the use of books and the library tools while carrying on reference work. They may also read for pleasure, choosing their own books from among the carefully selected collection of which the library is made up.


11. The Standard Practice Tests in *Handwriting* were used throughout the city in grades 3B to 8A inclusive. The district principals and principals were trained to pick out the outstanding items in a handwriting lesson so that they were able to observe the work in their own building to the extent of determining which teachers were most in need of help.

12. Generally supervision was carried forward as follows:

a. Visits were made to schools by members of the department in response to requests of a specific nature from principals and teachers.

b. Visits, initiated by the department, were made for the purpose of information and study of both method of teaching and reaction on the part of both teacher and pupils to the course of study.

c. Demonstration lessons were held in some districts for principals and teachers.



13. Each child keeps a record of the work done each day upon a class record card. A study was made of all these cards to determine the progress made by the city as a whole in the Practice Tests in Handwriting. From the results of this study, any grade and any building may compare the progress made with that made by the city as a whole.

14. Certificates were issued to pupils in grades 3B to 8A as soon as these pupils had met the standard requirements of their respective grades. A study was made of the pupils who received these certificates to determine if the principle underlying the awarding of these as a means of motivation was theoretically sound. That is, the children who received the certificates should generally stand high upon the final test. From the study the theory generally proved true.

15. In some districts a series of meetings was held to aid teachers in improving their own writing, in understanding material, in the technique of teaching and in training to score writing. During the summer session of 1921 there were 102 people who took the work offered in penmanship. In the evening session of 1921-22, 65 teachers completed the course.

16. As a result of the reorganization of several supervisory departments in February, 1922, the Kindergarten-Primary department became the *Department of Reading and Kindergartens*. The Reading department has been extended to include the upper elementary grades, the intermediate and high schools.

17. One of the main objectives of the department has been to provide for individual differences. A survey of the attainments in reading of X, Y and Z groups in 1B, 1A and 2B revealed the inadequacy of standards based solely on the achievement of pupils grouped according to intelligence. Instead of different standards of attainment for each group, a series of abilities in the development of reading have been outlined, which it is expected will provide for individual progress.

18. Practice tests in reading are being developed also which stimulate the purpose to read, enable the pupil to progress at his own rate and to appraise the results of his work.

19. In the second, third, and fourth grades definite help has been given in silent reading by means of bulletins and terri-

torial meetings. An experiment was completed to determine the distribution of the text books which best meets individual needs.

20. In the upper elementary grades an experiment is being conducted to organize reading classes into groups according to levels of ability and to furnish exercises which will stimulate the pupil to overcome his difficulties and progress to the next higher group.

21. In the high schools, tests have been given to help select such pupils as are in need of special training and to endeavor to place them in hospital classes for remedial work.

22. The following tests have been devised by the department: (1) tests in word recognition, two forms. These are revisions of the Group Vocabulary Test. (2) Oral Vocabulary Test, a diagnostic test for the purpose of aiding teachers of foreign children entering 1B to discover: (a) the extent of their English vocabularies, (b) the pupils' individual difficulties in enunciation and pronunciation, and (c) the basis for English work leading up to reading.

Exact Science Education

1. An assistant supervisor was transferred during the present semester to this department to give full time to the arithmetic work of the primary grades.

2. A number of units of work dealing with the civic phases of arithmetic were added to the course of study of the upper grades. This material included studies on the Disarmament Conference, Postal Service, Thrift, and a study of the departments of Detroit's city government.

3. A supplementary course of study was prepared to facilitate the use of five supplementary text books which were distributed to the arithmetic teachers. This has greatly extended the use of the applications of arithmetic in every day life to classroom teaching.

4. Criteria were developed by which the principal of any school can supervise the drill phase of arithmetic. A new series of drill lessons were introduced into the third grade to insure mastery of all of the simple addition, subtraction, and

tion and division combinations. The teachers were trained in the use of these lessons through a series of demonstrations and meetings.

5. A course of study for grades 7, 8 and 9, General Science in the Intermediate Schools, has been outlined and will, through further experimentation, be developed.

6. An extensive experiment to determine the best time arrangement for the four upper grade arithmetic classes in platoon schools is under way. At the present time the daily 50 minute time allotment is divided in two periods of thirty and twenty minutes each. In the experimental classes the time was divided into a 40 minute period for problem work and a ten minute period for drill work. The fact that the new time allotment operates satisfactorily is the only conclusion that can as yet be drawn.

7. The effectiveness of the general mathematics course in grade nine classes of the intermediate school is being measured. A comparison will be made between the 9th grade algebra and 9th grade general mathematics classes.

8. The arithmetic department has co-operated with the intermediate school commercial teachers in the development of a course in business practice for eighth grade commercial students. One class in each intermediate school followed the new course of study.

9. A series of simple projects for each grade has been distributed to the arithmetic teachers of the elementary schools. A comprehensive analysis and criteria for arithmetic project teaching accompanied these projects. It is the aim of the department to educate and stimulate the use of life situations in teaching arithmetic.

Social Location

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2. An extensive study was made of the conference at Washington for the limitation of armament.

3. Study of the postal system of Detroit and the United States, adapted to the sixth grade, was made.

4. An extensive study of thrift and the agencies of thrift adapted to the various grades of the city was made.

5. Separate programs were prepared for Franklin Day, Lincoln Day, Washington Day and Grant Day for a formal observation and commemoration of the birthdays of these leading American statesmen.

6. A general school election simultaneous with the city election was arranged and the occasion was used to instruct pupils in the actual duties of citizenship.

7. A study of immigration in Detroit and the United States and the place the immigrant occupies in our national, economic, political, social and industrial life was carried out.

8. The department is developing a course of study in social sciences, beginning with the first grade. At present, the detailed course for nature study and for grades 3, 4, 5 and 6 is completed and the general objectives for the entire course provided.

9. The general objectives of the social science studies have been prepared and placed on the various grade levels.

Visual Education

1. The Visual Education department has grown in all of the various lines of activity which are being carried on by the department. At the beginning of the school year, September, 1921, 19 schools were being supplied with motion pictures. Thirty-seven elementary schools and in addition two high and four intermediate schools were using this material at the close of the year.

2. Films are educational in character, supplementing regular instruction in geography, civics, nature study, elementary science, and English. They are used to form a background for classroom and auditorium work and furnish excellent material to initiate or help in carrying on projects.

tendent of schools, and the Board of Education of Tokio, Japan, an exhibit of the work of Japanese children in drawing, paper folding, and writing was sent to Detroit. These exhibits, together with a selected group of Japanese material of interest to children drawn from the resources of the Detroit Institute of Arts, formed one of the most interesting exhibitions of the year.

Vocational Education

1. Seventy per cent of all teachers of the department took part in upgrading courses of instruction given by Detroit Teachers College, the University of Michigan, and the Detroit Junior College.

2. Equipment layouts, supplies and textbooks for the shops and household arts rooms of the intermediate schools were standardized.

3. Experiments were made to establish what can be profitably constructed in school shops. As a result there are now blue prints of over one hundred articles which can be constructed in the public schools.

4. An investigation of the educational needs of the production worker in the automobile industry was made.

5. A definite program of work in academic, teacher training and shop subjects necessary for securing vocational certificates for those who are engaged in teaching or preparing to teach Smith-Hughes subjects has been worked out in conjunction with the state supervisor of industrial training.

6. Experiments were made to establish standards for free-hand lettering as applied to mechanical drawing. These experiments have involved between 6,000 and 7,000 pupils and 55 teachers in elementary, intermediate and high schools. A considerable portion of this work has been accomplished.

7. Courses of study for shop work in intermediate schools were completed.

8. Courses of study for domestic science in intermediate schools were completed.

9. Experiments were made to establish the value of food tests:

SUPERINTENDENT OF SCHOOLS

- a. As applied to the classification of foods (kn tests).
- b. As applied to the function of foods (kn tests).
- c. As applied to organization of meals (powe

These tests have involved about 950 students in elei intermediate, and high schools.

10. Experiments were made on a scale for hemn involving 1,500 students and 12 teachers. Experiments w made with comparison scales illustrating all fundamental and seams.

11. Experiments and investigations were started t lish the standards of the good and bad way of dressing of pre-school age.

12. The department co-operated with the Chicago sity, University of Buffalo and the Iowa State Colleg establishment of scales for hemmed French seams, th the tucker, and a technical information test for girls.

13. Large contributions were made in work o clothing for hospitals, Junior and Senior Red Cross, C Homes and nurseries. Closer relations have been est between the department of Domestic Art and the genera

14. Courses of study for intermediate schools in dr ing, millinery, general home making, and textiles we pleted.

15. Experimentation was made in book repair by the manual training classes of elementary schools which 729 children and the repair of about 10,000 books.

16. The course of study in applied art in the pla was organized and teachers trained for this work.

Fine Arts Education

Art

1. The real work of the art supervisor is to provide experiences for the child to the appreciation of beauty in nature their lives and making them better cit

2. A course
designed to

stereopticon and small pictures, the masterpieces of art in sculpture, painting and architecture that they may learn to recognize and name these great works, the nationalities of the artists and where they are, and thus be led to value the contribution of art and artists to their own and other countries. This work has been carried on by meeting and speaking to 10,000 children from 80 schools.

3. The art department has arranged for public school classes to visit the Detroit Institute of Arts. The practice of the Institute of Arts of loaning pictures to the schools has been continued. Pictures are loaned in groups, explanatory talks being given upon request. Exhibits have been sent to 42 schools, reaching approximately 44,166 children.

4. The art department, through pupils in Detroit Teachers College, high schools, intermediate, and non-platoon schools has responded to the requests for posters advertising campaigns of the city Health and Fire departments, and such other organizations as the Boy Scouts, Junior Red Cross, etc.

5. Twenty-five hundred Christmas cards and 2,000 Easter cards were designed and made by pupils in the art classes for distribution in hospitals and other city institutions.

Music

1. Each school has a music teacher who teaches singing, voice culture, ear training, sight reading, and appreciation of music. Sixty to ninety minutes per week are given over to music, according to the grades. The platoon schools have a teacher for each building, a music room and equipment. The departmental schools are visited by the music teacher two or three times per week according to the size of the building.

2. Fifteen operettas were staged and sung in the platoon schools during the year; some of them were very well done, notably the one given by the Cooper school.

3. Small orchestras have been organized in the Russell, Dwyer, Franklin, Monteith, and Marcy schools, in which good results have been accomplished.

4. Music in the intermediate and high schools has grown very much in the last few years and a piano and violin teacher

platoon schools already established with a total saving of 28 teachers.

3. Preliminary sketches of all plans for additions to elementary schools have been reviewed and the exact type of organization and the exact use of each room determined before the working sketches have been made. This policy of determining all the details of an organization and of remodeling the building to definitely fit this organization is not only an innovation but a decided step in advance in school organization and in school construction.

4. The Platoon department has carried on constant study and research for the purpose of improving and refining the platoon organization. Programs of all platoon schools have been checked, a new time allotment for platoon schools has been made; research studies bearing on building capacity, student hour costs, use of instructional space, and use of teachers' time in platoon schools have been made.

5. An assignment program standardizing the teaching load has been developed and a study made showing waste of teachers' time and of instructional space in non-platoon schools due to the employment of special teachers. The latter study has resulted in a new and improved schedule blank for all elementary schools.

6. The district principals have made progress in evolving a better technique for the administration of their several districts. Closer co-operation between this group and the supervisors has been brought about with resulting advantages to all of the elementary schools.

7. A mode of procedure for the transfer and assignment of teachers was worked out by the district principals which has resulted in more effective service in this field.

8. The duties of the elementary principal have been studied exhaustively with the aim in view of defining more clearly the duties of this official. The preliminary results obtained by this committee will be used as a basis for further research along the same line next year.

9. Each district principal has carefully checked and reorganized his district with a resulting saving in teachers.

and a reduction in half-day sessions. The group of district principals has been especially successful in solving problems and making adjustments which formerly were referred to the central office. The district principal, because he is closely in touch with the matters of his district, can settle mooted questions more promptly and effectively than the more remote officials in the central office.

SPECIAL EDUCATION

Education of the Anemic

1. The Maybee school was opened in October, making five regular open air schools and two hospital schools. Four open window rooms were opened in September to care for convalescent and undernourished children.

2. In February a room for cardiopathic children was opened with an attendance of 23. The results in this room have been good.

3. In January the children of Kiefer Hospital were moved to the Northville Sanitorium. Two teachers are furnished for the instruction of these children.

Classes for the Blind and Sight Conservation

1. The total registration for the year was 144. Of this number 124 were enrolled in the sight conservation classes. There were 20 Braille pupils. There are now 12 teachers in this department.

2. In academic work these pupils have had regular promotions and there have been fifteen double promotions.

3. Increased attention has been given to typewriting. Graphs have been used to show individual progress in typewriting. Many pupils in the higher grades have been given dictation work.

The school year was the Sight Conservation year of March 25.

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opening

of the addition in September, 1921, doubled the capacity of the school. An additional teacher was provided in the department of physio-therapy and a full time nurse allowed by the Health department, thus making more adequate provision for the physical welfare of the child.

2. The classification of cases registered during the year was: (a) infantile paralysis, 43.3%; (b) tubercular bones, 17.1%; (c) spastic paralysis, 16.3%; (d) congenital deformities, 5.3%; (e) accident, 4.1%; (f) osteomyelitis, 2.9%, and (g) other diseases, 11.0%.

3. There were 241 orthopedic examinations and re-examinations, 66 muscle examinations, 73 muscle re-examinations and 62 receiving treatment in department of physio-therapy.

4. A method of procedure was developed for the treatment of infantile paralysis cases. This consisted of:

a. A thorough examination of the muscles of the entire body is made before treatment is begun, and relative strength charted. The exercises for the muscle training are then planned from these charts. Every three months re-examinations are made, and treatment changed, as the case demands.

b. A chart, based upon the number of muscles considered, has been made, to show after each re-examination (a) number of muscles involved, (b) number which show, (1) complete recovery, (2) partial recovery, (3) no change, (4) loss of power.

5. Binet tests are being given to all children upon entering the school and group intelligence tests have been given to all children from grades three through eight.

Education of the Deaf

1. There were 180 pupils registered during the current year.

2. The scale for classification of different degrees of hearing as developed last year, has been accepted by the State Department of Public Instruction as the classification to be placed on the official annual reports of the Day Schools for Deaf.

3. The testing and developing of residual hearing was carried on with very satisfactory results. The advantage

training are worth while and a few years of steady application to this type of research should establish records of scientific value.

4. A closer relation between the School for Deaf and the vocational activities was established with other schools. Pupils who reach the age for vocational work may continue their academic studies in this school for a half day and complete the day's work in a vocational center.

5. The normal course in the physiology of the ear for teachers of the deaf has been supplemented by illustrated lectures together with loan of material from the Detroit College of Medicine and Surgery.

Education of Backward Children—Group A

1. Three new Special A classes, the Duffield Annex, Ravenswood, and Cooper, were organized this year. The Scripps class was moved to the Nichols school. This brings the total to 64 classes.

2. A uniform program and time schedule was developed by the teachers of the Special A classes.

3. A course of study in arithmetic has been outlined.

4. The regular writing test was given so as to compare the results with the writing in regular grades.

5. All children now in Special A classes not examined within a year were re-tested. Those classified as "dull" who had made normal progress and were able to work with the Z section, were returned to the regular grades.

Education of Backward Children—Group B

1. New centers were opened as follows: for girls, at the Bishop and Carstens schools; for boys, at the Cooper and Davison schools. The Cary and Morley centers were moved and consolidated at the Lindstrum school. The Newberry, Craft and Hutchinson centers were increased by 30 pupils and one

...ses of ... line form were prepared under ... of the ... in wood-work ... wood-turn- ... ics, h ... chanics, mechanical draw- ... ing ... deal ... The ac ... teachers ... body ... and aris ...

3. An experiment in grading children in reading and arithmetic by means of educational tests upon entering Special B classes was conducted. The Haggerty and Thorndike-McCall reading tests and the Cleveland Survey tests in Arithmetic were used.

4. An experimental class for the training of Special B girls in cafeteria work was conducted at the Miller intermediate school. The girls received training by working in the school cafeteria.

5. All pupils on becoming 16 years of age were given a final Binet test.

6. The continuation pupils of these classes were cared for by allowing them to remain in the class instead of going to the Continuation school.

Speech Correction

1. The registration in the Speech Correction department increased from 1,433 to 2,752; 23 teachers, 5 more than last year, cared for the 183 classes, in 56 speech centers.

2. One thousand one hundred and thirty-two corrections were made. This was a percentage of 41.1. Only 7.9% of the entire registration showed little or no improvement.

3. Individual work was continued in high and intermediate schools. Gray's Oral Reading Test was used to test the reading ability of stammerers. Six hundred forty-two tests were given.

4. The annual speech survey was made to determine where new centers are most needed. Only outstanding cases were listed.

Special Preparatory Classes

1. There were 23 special preparatory rooms in operation with a membership of 605. To conform to the new policy of the department, seven of the Special Preparatory classes are now caring for typical high grade Special B pupils.

2. All transfers of pupils to the special preparatory classes this year have been based on either group intelligence or Binet tests.

3. Much interesting material has been collected by means of questionnaires to pupils in ungraded rooms. It is hoped that

by this study a better understanding of the ungraded boy, his troubles and his ambitions, may be reached.

4. The Thorndike-McCall reading tests have been given to special preparatory and ungraded classes as an aid to grading pupils, and the Illinois tests are being given as a further check on these pupils.

5. The policy of the special preparatory department has been changed somewhat during the past year. This department aims to care for those children in the higher elementary grades who differ materially from the type. This includes the average, dull and borderline children who need much individual attention and encouragement.

Special Advanced Classes

1. Two centers, the Field and the Fairbanks, were transferred into the Intermediate schools. In all centers, the Special Advanced teachers take care of the academic work and the gymnasium, music, etc., are taken with the regular intermediate classes.

2. The following tests were given to all pupils of the Special Advanced classes: Thorndike-McCall reading test and Illinois test.

3. The regular writing test was given to all pupils. A comparison was made with the writing of the regular grades and also with the children of Special A classes.

Fieldwork

1. The fieldworkers select the children to be given individual examinations by the examiners of the clinic as follows:

a. **Low scores on group tests.**

b. Over-age for grade.

c. Special cases having eye or ear defects.

d. Special problem cases or others who do not conform to school work.

2. Considerable success has been attained in the correction of vision and hearing. The results of the mental examination helped to determine the importance of the child's mal-adjustment. Remedial work of these cases was made and the results reported to the parents.

3. A study made of children having special defects in academic subjects, who apparently had no defect of vision, has shown that some of them needed refraction for glasses due to a weak accommodation. This made glasses advisable for close work.

4. In the interest of the Junior League of the Red Cross, a survey of crippled children unable to attend school was made and through the co-operation of the Health department, the homes were investigated to insure protection against contagious disease. Individual instruction is given in these homes in academic subjects and occupational therapy under the supervision of the Junior League.

5. Child welfare was carried on through the co-operation of the Rotary Club, Department of Public Welfare and the School Welfare Committee of the Board of Education, in providing shoes and clothing for needy children.

INTERMEDIATE EDUCATION

1. During the year two new intermediate buildings, the Levi L. Barbour, capacity 1,800, and the Harry B. Hutchins, capacity 1,500, have been opened, making at present five intermediate schools in operation.

2. The new intermediate program of studies has been put into effect in all intermediate schools.

3. At present between one-fourth and one-fifth of all pupils in grades seven, eight and nine are in the intermediate schools.

4. With the completion within the next year of construction now authorized and for which plans are well under way, approximately three-fifths of all seventh, eighth and ninth grade pupils will be in attendance in intermediate schools in 1923-24.

5. The activities of the supervisory council have been extended to cover the intermediate organization.

6. The council of intermediate principals with regular weekly meetings has been organized.

7. Considerable progress has been made during the year in carrying forward articulation between the school program of studies and those of the elementary

rooms, 37 shops comprising two materials testing laboratories, six machine shops, three steam laboratories, two building construction shops, one electrical wiring, one armature wiring, one house wiring, one power wiring, five auto mechanics shops, one art metal shop, one arts and crafts, one radio laboratory, one laundry, one heat treatment laboratory, one foundry, one core room, six pattern making laboratories, two forge rooms; 12 chemical laboratories, 12 administrative offices, seven mechanical drawing rooms, six physics laboratories, four cooking rooms, five study halls, six sewing rooms, four teachers' rest rooms for women, four teachers' rest rooms for men, six applied art rooms, three biology laboratories, three gymnasiums, three principals' offices, two bacteriology laboratories, two special laboratories, two swimming pools, one library, one auditorium seating 3,100, one science lecture room seating 150, one teachers' lunch room seating 100, one students' lunch room seating 800, one council room seating 100, one reception room, one power house detached, one medical examination room and one music room.

2. Group courses have been established as follows, except in graphic arts. The graphic arts subjects, with the exception of printing, are under advisement. All of these groups include the core subjects of English, Mathematics, History and Civics, following the requirements for entrance into the University of Michigan Engineering College:

a. Mechanic Arts

Pattern Making, Foundry, Forge, Machine Shop, Sheet Metal, Welding, Auto Mechanics, Mechanical Drawing.

b. Electrical Group

Building Construction, House Wiring, Power Wiring, Armature Wiring, Telegraphy and Radio, Alternating Current Laboratory, Direct Current Laboratory.

c. Science Group


Chemistry, Physics, Biology, Bacteriology, Pharmacy—six year course, Metallurgy—five year course.

d. Applied Arts Group

Free Hand Drawing, Applied Design, Hand Lettering, Arts and Crafts, Metal Work, Jewelry Making, Illustrating.

e. Graphic Arts Group

Printing, Book-binding, Photo Engraving, Commercial Photography, Electrotyping, Lithography.



f. Girls' High School and Continuation Group

Home Economics, Nurses Preparatory, Applied Arts, Graphic Arts, Occupational Therapy, Cafeteria Management, Choice of Science or Art Group.

g. Automotive Group

Starting, Lighting, Ignition, Gas Engine, Chassis, Repairs.

h. Music Group

Symphony Orchestra, Band, Chorus, String, Wind and Reed Instrumentation, Harmony, Melody.

3. The membership during the past school year has been:

High School	2,274
Soldiers	487
Chemistry Continuation	136
Pharmacy Continuation	101
Trade Dressmaking	289
Boys' Continuation	1,117
Girl's Continuation	1,026


Total day school.....	5,430
Evening school	3,138

Grand total8,568

DETROIT TEACHERS COLLEGE

1. The year 1921-22 has been one of rapid growth and consolidation. The functions of the college and its relations to other departments of the system have been more clearly defined, the work actually done in discharging these functions has been revised in plan and improved in quality, while the actual service rendered to the city system has been greatly extended in amount. Most important of all, a progressive plan of development has been outlined which insures vigorous creative life for many years to come.

2. During the year, the Probationary department has arranged for the assignment or transfer of 1,388 teachers, and has supplied calls for 21,061 days of emergency substitute service. It has aided in the assimilation of 562 teachers new to the city, has made 902 visits to cadet teachers and has held training meetings at the college with a total attendance of 953. It is primarily



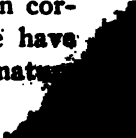
through the work of the Probationary department that Teachers College establishes direct contact with the schools and the importance of these contacts can scarcely be over-emphasized. They serve both to bring to light the problems to which the college needs to minister and to appraise the success of the college in providing the type of training teachers need.

3. The work of the Practice Teaching department is another important element in the development of able teachers. The growth in the number of students enrolled has made necessary an increase in the practice teaching schools. The McGraw and Wingert schools have been reorganized and staffed with specially selected teachers. The college now has one non-platoon and two platoon schools for practice work. The total number of critic teachers is 72. Coincident with this extension has been the development of improved methods of conducting the practice teaching which promise to greatly strengthen this phase of the teacher training work. The organization of extensive field work in the city schools has been another constructive innovation in this department.

4. In the regular day sessions of the college during the year, the first two semesters of the new four-year curriculum have been put into operation and new courses prepared for the second two semesters. In effect, this means that the academic work of the college has been carefully revised to conform to a consistent plan of teacher training and the standards of work raised to meet the needs of the situation.

5. A feature of the year's work has been the increasing interest and activity of the alumni. The alumni house project, developed and carried through to successful achievement in the city schools, has done much to strengthen the bonds which tie Teachers College to individual schools and teachers.

6. The work of the rural department merits special mention. Not only has the number of teachers in training for the rural schools of the county greatly increased, but supervisory direction of the rural teachers close to Detroit has grown correspondingly. The facilities and influence of the college have been made available to those who need them most, the immature



teachers of limited training who teach the children in the suburban districts around Detroit, children who in such large numbers inevitably become a part of the population of the city.

DETROIT JUNIOR COLLEGE

1. An unexpected increase of 54% in the membership of the first semester over the same period last year, which was further increased by many entrants the second semester, necessitated a large increase in the teaching staff of the college. This permitted the introduction of new courses, especially in the departments of English and the social sciences.

2. The evening session also showed a large increase in enrollment and offered for the first time courses in oratory, journalism, economics and psychology.

3. The policy of encouraging initiative and self-direction in extra-curricular activities has been continued in the belief that ample opportunity for participation in such affairs not only develops a sense of responsibility but is also the best preparation for meeting the experiences of life. In addition to a Men's Debating Team, which successfully debated teams from Kalamazoo Normal, Olivet and Alma College, a Chess, Cosmopolitan and an Economics club, were added to the list of student organizations.

4. The social life of the college has broadened under the direction of the social director and the social committee. The Carnival, sponsored by the Student Council for the graduating classes of the Detroit high schools and their friends, was attended by nearly 3,000 people.

5. The increased receipts from the registration fee permitted greater athletic activity among both men and women. Athletic relations were established with the University of Cincinnati and other four year colleges.

6. The Women's League, which includes in its membership a majority of the women students in the college, has widened its interests and influence in and out of the college. Two delegates were sent to Illinois to represent the League at the Conference of the Middle-Western Collegiate Association for Women's Student Government.

7. The system of advisory groups has proved its value. Each student is now permitted to choose his own faculty advisor. The several groups meet at regular intervals and discuss with their advisor their personal problems and methods of promoting mutual understanding and co-operation between the faculty and the student body.

DETROIT COLLEGE OF MEDICINE AND SURGERY

1. There were 182 students registered in the College of Medicine and Surgery during 1921-22 of whom 144, or 79.6% were Detroit residents.

2. The clinical instruction to the senior class has been transferred from the various private general hospitals to the City Receiving Hospital, Herman Kiefer Hospital and the Children's Free Hospital, with the exception of certain specialties now being taught in the out-patient department of St. Mary's Hospital, which will be transferred to the Receiving Hospital as soon as facilities are available in that institution. The clinical work of the junior class is limited to the out-patient department of St. Mary's and Grace Hospitals.

3. Special lecture courses are being given to such members of the Department of Health Education in the city schools as desire them, and to the teachers of the deaf.

4. The newly appointed teachers in the city schools receive very complete physical examinations including determination of blood pressure, analysis of urine, stethoscopic examinations, etc.

5. A survey of the swimming pools in the public schools has been made and it is expected that additional work along this line will be done and results be incorporated in a piece of research to be issued in the near future.

6. The students registered in the junior and senior classes of the medical school, under supervision, examine and treat very large numbers of the city's poor. These examinations involve chemical analysis, blood counting and all the various applied chemical analyses, which, without the students, must be specially paid for by the city or else discontinued.

7. A sweeping reduction in the personnel of the teaching staff is planned with the probable elimination of about seventy-

five members of the present staff, the policy being to retain only those teachers whose services can be used to advantage, from time to time adding men of proved worth in accordance with the development of definite need for their services.

8. A material increase in pre-clinical teaching and research facilities will be made possible by taking over the greater part of the building now occupied by the laboratories and clinics of the Health department and installing appropriate teaching and research equipment in the laboratories thus made available.


9. Plans are being formulated as rapidly as possible for the establishment of an out-patient clinic to be conducted under the joint auspices of the Welfare Commission through the Receiving Hospital, and the Board of Education through the Detroit College of Medicine and Surgery. This is in all respects an extremely necessary project and must be developed as rapidly as circumstances permit.

10. In accordance with instructions received at the recent conference on public health education called by the Surgeon General of the Public Health Service, plans are being formulated for increased teaching along the lines of preventive medicine and public health. These courses will be considerably elaborated and placed on the same footing as other major courses in the college.

SUMMER SCHOOLS

1. A study was made of the effect of 1921 summer school attendance on the marks of pupils during the following semester. Three general types of progress were studied: (1) pupils promoted in June, 1921, and making an extra promotion in August; (2) pupils promoted in June but not making an extra promotion in August, and (3) pupils failing in June, making up this failure during summer school, and being promoted in August. The June, 1921 marks were compared with those for January, 1922, for each case studied.

2. The results indicate that the marks of pupils making a double promotion, type (1), are nearly as high the following semester. The higher the pupil's mark in June, the greater is the probability of his making an extra promotion in summer school and of doing satisfactory work in the fall semester.



3. Type (2) cases, promoted in June but not receiving an extra promotion in August, in general were those that had lower June marks. In spite of the extra eight weeks on the work of the fall semester, the marks of the following January in this group were practically the same as in June. This indicates that such students do not profit much from summer school.

4. Pupils failing in June but making up the failure in summer school, type (3), seems to profit much from the eight weeks. Forty-two per cent of the marks of this group are better in January than in June, and 88% of the pupils are promoted the following January.

5. The study suggests that summer school attendance is of most value to pupils who have failed in the regular work of the spring term. Of the students passing, the ones with the higher marks seem to be able to make an extra half-grade during summer school and still do the work of the next semester satisfactorily. If it is necessary to restrict attendance at summer schools these two groups should have the first preference.

EVENING SCHOOLS

1. There were 28,293 adults registered in the evening elementary and high school classes. Of these 11,967 were in elementary schools, with 1,333 in citizenship classes.

2. Units were operated in 10 high schools, eight elementary schools, 43 extension centers, with one to 10 classes each in factories, settlement houses, non-public schools, public schools, churches, foreigners' clubs, and in the city prison. Of these extension centers, 25 were for foreign women and 18 were mixed. The total number of centers was 61.

3. Most of the work was covered in 26 weeks, with a few high schools and extension centers holding over into the summer.

4. A course in lip reading for the hard of hearing was added to the curriculum.

5. Community work was undertaken on an extensive scale at the Balch school.

6. Administration of evening high schools, evening elementary schools and summer schools was combined under one head.

Part IV—Organization

A DETAILED organization study was presented in the seventy-eighth annual report.

Changes were made in the superintendent's general organization and in the intermediate schools. These are presented in the following pages.

EDUCATIONAL ORGANIZATION

A number of changes in this organization were made primarily because of absence on leave of an assistant superintendent. The general character is still the same.

1. Superintendent

The superintendent personally administers the following activities:

1. Medical College.
2. Junior College.
3. Payroll Department.

2. Deputy Superintendent

The deputy superintendent administers the elementary schools, intermediate schools, high schools, continuation classes, the vocational bureau and the building program.

3. Assistant Superintendent

There was one assistant superintendent who had charge of:

1. The selection of teachers.
2. The assignment and transferring of teachers.
3. The inspection of new teachers.
4. Text books.
5. Complaints.

4. Directors

There are four directors. One has charge of:

1. Instruction (Supervision).
2. Teacher Training (Teachers College).
3. Instructional Research (Measurement).

The second unit is Statistics and Reference, including records, publications, financial and administrative research.

The third department is Educational Expenditures, including personal service, furniture and equipment, books and supplies, internal accounting, the high school auditor and the preparation of the budget.

The fourth department is Special Education, including the Psychological Clinic and nine divisions of classes for exceptional children.

5. Assistant Directors

There are two assistant directors. One has charge of building research and the building program under the direction of the deputy superintendent.

The second has charge of instruction under the Director of Instruction, Teacher Training and Research.

6. Supervisors

There are two administrative supervisors, one in charge of Americanization work, evening and summer school education. The second supervisor has administrative control of the continuous school census and has supervisory control of the attendance officers who are responsible to the district, intermediate and high school principals. He handles all referred cases and carries them into court.

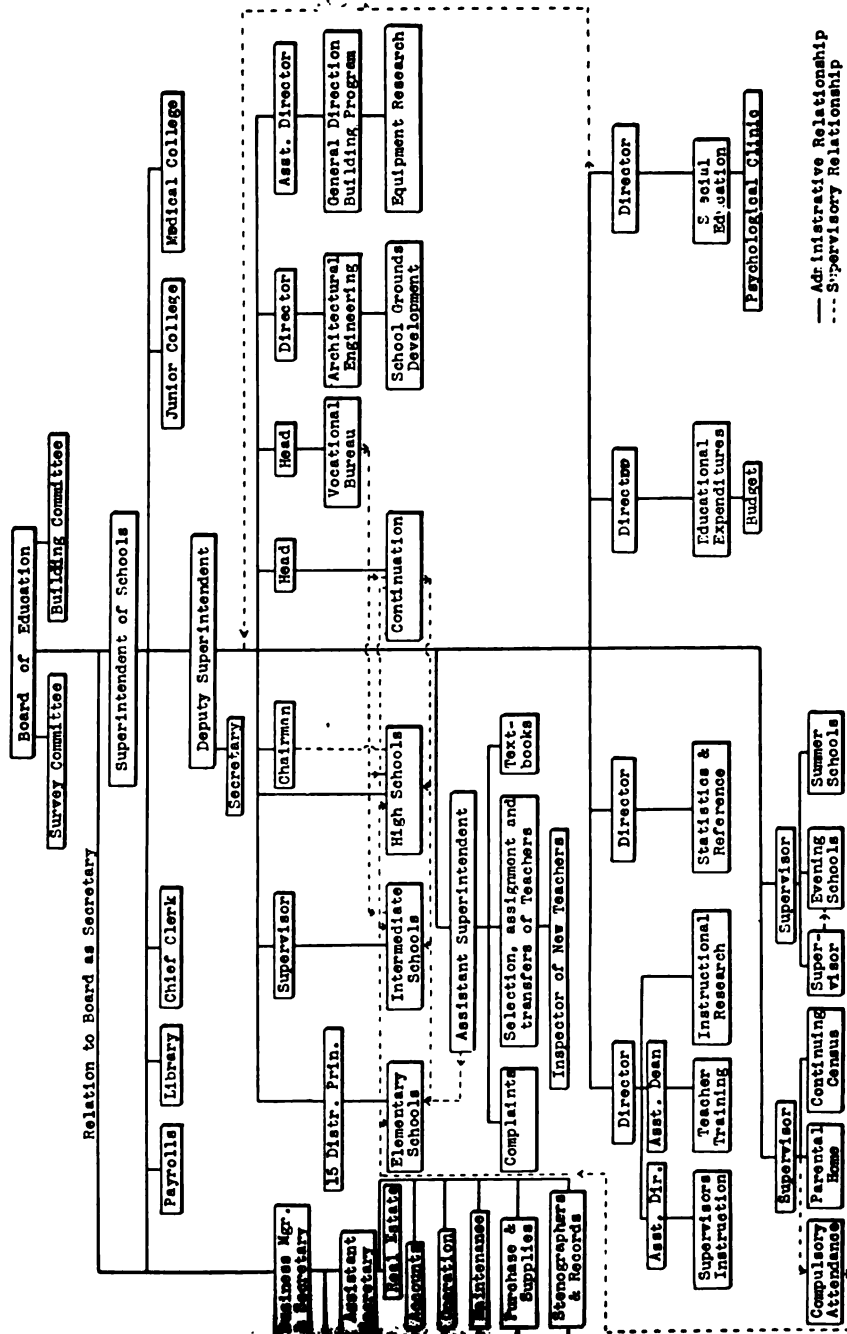


Diagram 8—Superintendent of Schools' Organization 1921 22

Organization of the Intermediate School

The intermediate school is organized upon the general basis of a home room, except that the clerical work of record keeping is done through the office.

The administrative staff of an 1,800 intermediate unit consists of one principal, one assistant principal, two vocational counselors, one home visiting teacher, and four clerks.

The instructional staff consists of six department heads, and the necessary instructors to carry on the classroom activities of the school. The department heads teach four 60-minute classes and the instructors teach five 60-minute classes per day.

The operating staff of the school is in charge of a chief engineer, who is responsible for the supervision of the janitorial staff as well as the heating and ventilating.

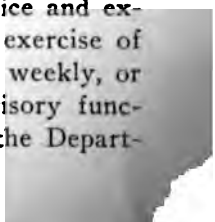
Principal

The principal is the chief executive officer, and is responsible for the successful operation of the entire plant. This includes:

1. The carrying out of policies that provide the physical, financial and educational conditions under which pupil and teacher may work to best advantage.
2. Placing in operation the course of study, general data and instructions.
3. The prompt transmitting of information on conditions in the schools to the central offices.
4. Putting into operation standards of achievement.
5. The preparation of general data and reports.
6. Research activities, and
7. General publicity.

The non-instructional activities, named in 1, 3, 5 and 7, are delegated to the assistant principal, leaving the principal free to give his entire time to the direction and supervision of all instructional activities.

In this field the principal is assisted by the advice and experience of the six department heads, who, in the exercise of their supervisory function, meet with the principal weekly, or oftener, as the Instruction Council. These supervisory functions are exercised under the general direction of the Depart-



ment of Instruction, through the central administrative officer in charge of intermediate education. These supervisory functions are:

1. The preparation and development of courses of study and bulletins on method.
2. Examination of text books.
3. Demonstration teaching.
4. Teachers' meetings for the improvement of instruction.
5. Personal conferences for the interpretation of methods and curriculum.
6. Classroom visitation and inspection, and
7. Setting up standards of achievement.

Assistant Principal

The assistant principal is responsible to the principal for the physical and mechanical operation of the school plant. These duties are broadly defined as non-instructional.

They consist of:

Vocational and Educational Direction

The vocational counselor, under the general supervision of the Vocational Bureau, is responsible to the assistant principal for the vocational and educational direction of the pupils.

Visiting Teacher

The attendance, or home visiting teacher, is responsible to the assistant principal for the investigation of non-attendance and of social conditions.

Records

The record clerks and stenographers are responsible, under the direction of the assistant principal, for (a) the mechanical development of the program, (b) recording of all records, (c) absences, (d) excuses, (e) notices to parents, (f) checking of credits, (g) general office routine, (h) pupil and general reports, and (i) reports to central offices.

Finance

The bookkeeper is responsible, under the direction of the assistant principal, for all (a) internal accounting activities, (b) the financial conduct of the lunch-room, (c) the purchase of supplies, books and equipment, (e)

Operation

The chief engineer is responsible, under the direction of the assistant principal, for the heating, ventilating and cleaning of the school plant, for all requisitions for operating supplies and for maintenance activities.

Vocational Counselors

The vocational counselors attached to the school are under the general supervision of the Vocational Bureau, but directly responsible to the assistant principal. Their duties are those of vocational and educational information and direction in accordance with the general policy of the central bureau. This technique is still in the development stage.

Home Visiting Teacher

The home visiting teacher is directly responsible to the assistant principal and his function is the investigation and the adjustment of conditions, including non-attendance, in the lives of the individual children to the end that they may make more normal school progress. This shall include the study of social and economic conditions under which such pupils live, and such other social investigation as the vocational counselor may direct. This teacher should be relieved of all administrative or paper work and should devote full time to the function of investigation.

The Instruction Council

There are six departments of instruction:

1. Health Education.
2. Language Education.
3. Exact Science Education.
4. Social Science Education.
5. Vocational Education.
6. Fine Arts Education.

The heads of these departments carry four 60-minute classes, are specialists in their field, and for the compensation above that of regular teachers (\$700), are required to devote extra time to the development of instruction under the leadership of the principal, and under the general supervision of the Department of Instruction, through the central administrative officer in charge of intermediate education.

Instructors

The instructors are under the administrative control of the principal and under the supervision of both principal and department heads. The instructors are under the direct supervision of the different department heads under whose control their particular subjects fall.

Home Rooms

Each teacher may be assigned to a home room. In general, teachers who are responsible for extra-curricular activities, may be excused from home room activities. Pupils are assigned to home rooms in groups of 35 to 40. This calls for 52 home rooms. They remain with the same home room teacher during their school career except where circumstances make a change desirable or necessary. As the older pupils graduate new ones are assigned to their places so that the spirit and homogeneity of the group is maintained.

The home room teacher meets the group for at least 30 minutes daily. There is no clerical or administrative work to be done. The full time and ability of the teacher may be devoted to developing an intimate knowledge of the pupils' capabilities and interests. She must be acquainted with the parents and the home conditions of her particular group. The home room teacher must co-operate closely with both the vocational counselor and visiting teacher. The vocational counselor may call upon the home room teacher for a report upon each pupil at any time.

The home room teacher is also responsible for the child's academic standing and for the semester program after the first entrance into the school.

The general organization is shown in the chart on the following page.

Pupil Activities

The extra-curricular pupil activities shall be under the supervision of teachers who are not assigned to home rooms, under the direction of the department heads according to the following classification:

1. Health Education.

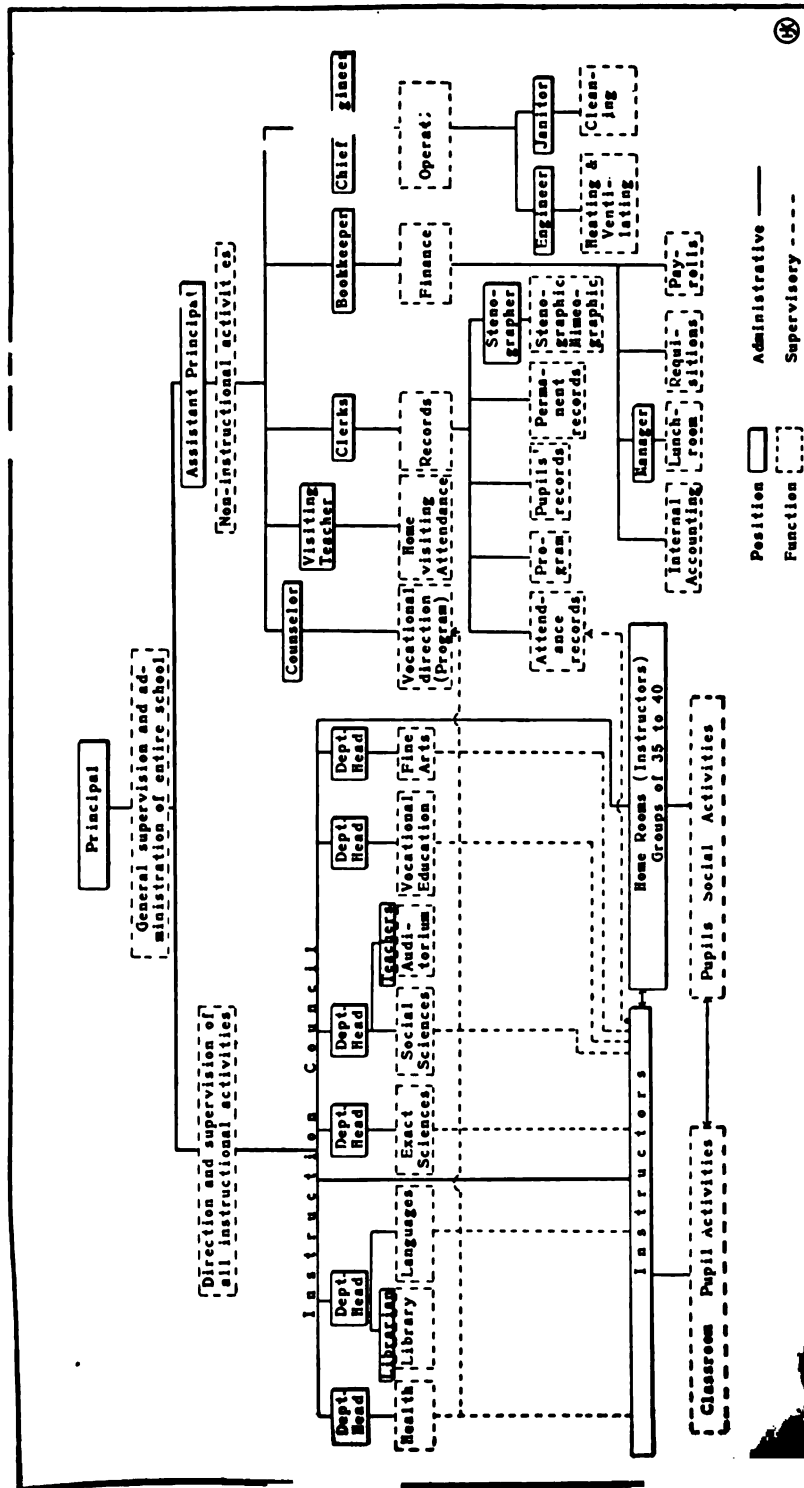


Diagram 9—Organization of the Intermediate School

plan (910) and one copy of the teacher's class record (907) for each subject on his program.

If the pupil is a member of the school, his program is prepared by the home room teacher. The same forms will be filled out as in the case of new pupils. The home room teacher prepares this program for her group with the co-operation of the department heads and vocational counselor.

All adjustments of programs are to be made by the assistant principal.

This is shown in the chart on the opposite page.

Records

The use of intermediate school forms and records is described in the following pages.

New Pupils

A pupil entering the school for the first time meets the assistant principal, who directs him to the vocational counselor.

He fills out preliminary registration (form 900), and, after consultation, plan of work (form 903). He also prepares one copy of form 907 for each subject on his plan of work. Two copies of the semester record and report card (form 902) must be prepared also, along with the pupil's own copy of his program (form 910). The vocational counselor sends the plan of work to class with the pupil, and the preliminary registration (900), the teachers' class cards (907), and the duplicate forms of 902 to the record clerk.

Old Pupils

A pupil who is already in membership in the school fills out form 903 before the close of the semester, under the direction of the home room teacher, and one copy of form 907 for each subject on his program. Two copies of form 902, semester record and report card, must be prepared also, along with form 910, the pupil's copy of his program. The home room teacher sends the duplicate copies of 902 and all copies of 907 to the record clerk.

Record Clerk

The record clerk is responsible for the following procedure.

Upon the basis of the temporary registration (900), the permanent record master card (901), and the permanent record

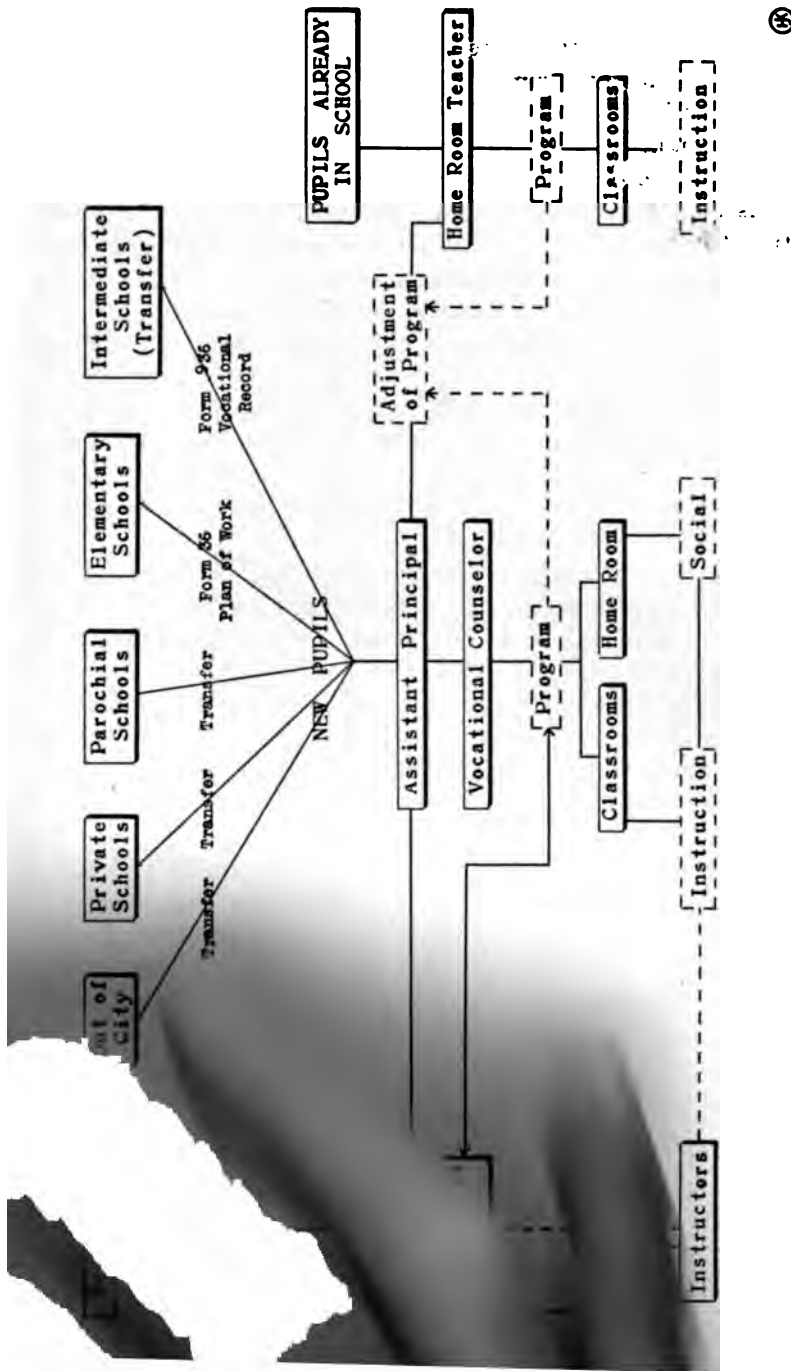


Diagram 10—Intermediate Pupil Routine

envelope file (930) are prepared and properly filed.

Notice of registration (form 20) must be sent to the Department of Attendance immediately.

Upon the basis of registration (901) and the semester card (902) the permanent record and transfer card (form 935—white; form 936—salmon) are prepared. Form 902 is filed in the proper desk compartment until the close of the semester. Form 935 is filed in the proper desk compartment and form 936 is sent to the Department of Health Education where it remains until the child leaves school, when it is returned to the office and used as a transfer record.

The record clerk makes daily tabulations of all absences (form 913), reported by the teachers upon the semester card (902) and writes excuses (912), which, when returned signed by the last teacher interested, are placed in the permanent file (930).

At the end of the semester the semester standings, placed on the semester card (902) by the teachers, are transferred to the permanent record card (935) and the semester card (902) is filed in the permanent file (930).

If a child leaves permanently, notice of leaving (form 16) must be mailed immediately to the Department of Attendance.

The record clerk is required to keep the statistical register (form 3) for each grade and to prepare each month the statistical report (form 534) and the class report (533).

Flunkage reports, geographic location, age-grade and other special reports are prepared in this department.

Non-attendance notices to parents (927) are mailed each day after the teachers' reports have been checked. A list of the absent pupils is also given to the visiting teacher immediately.

The record clerk will post weekly on the bulletin board the names of pupils who have left the school permanently (904).

Bookkeeper

The bookkeeper is responsible for all internal accounting activities, for requisitions and for the preparing of payrolls and salary distributions.

Teachers

Copies of the teacher's class record card (907) giving the

number and names of pupils assigned to any class, are sent to the teachers by the record clerk.

The teacher makes out daily absence reports (913) and sends these to the record clerk.

Teachers mark semester record and report card (902) in duplicate as often as directed by the principal.

Promotion rolls (932) are prepared by the teacher and kept in the record clerk's office between markings.

Home room teachers mail notices of unsatisfactory work (926) to the parents in addition to sending home by the pupil at certain intervals the duplicate of form 902.

Teachers prepare credit slips (924), not passed slips (922), and conditioned slips (921) at the end of each semester.

Science teachers are required to keep a running inventory of laboratory supplies (944).

The Department of Health Education keeps form 936 and records the health record on the reverse side at least once a semester. This health record must be transferred to form 935, the permanent record.

The weekly student hour report (957) the monthly salary distribution (954), and the internal requisitions for supplies (948), are filled out as required and the first two sent to the record clerk, the third (948) to the bookkeeper.

Librarian

The librarian is responsible for the proper use of all library forms, including 916, 917, 919 and 920.

Reports to Headquarters

Reports to headquarters should be addressed to the several divisions upon the basis of use, as follows:

Forms 14 and 20 should be sent directly to the Department of Attendance.

All Internal Accounting forms must be kept in accordance with the printed regulations of the Board of Education under the direction of the auditor.

The inventory and all requisitions for supplies, books and equipment are to be sent to the Department of Purchasing and Distribution.

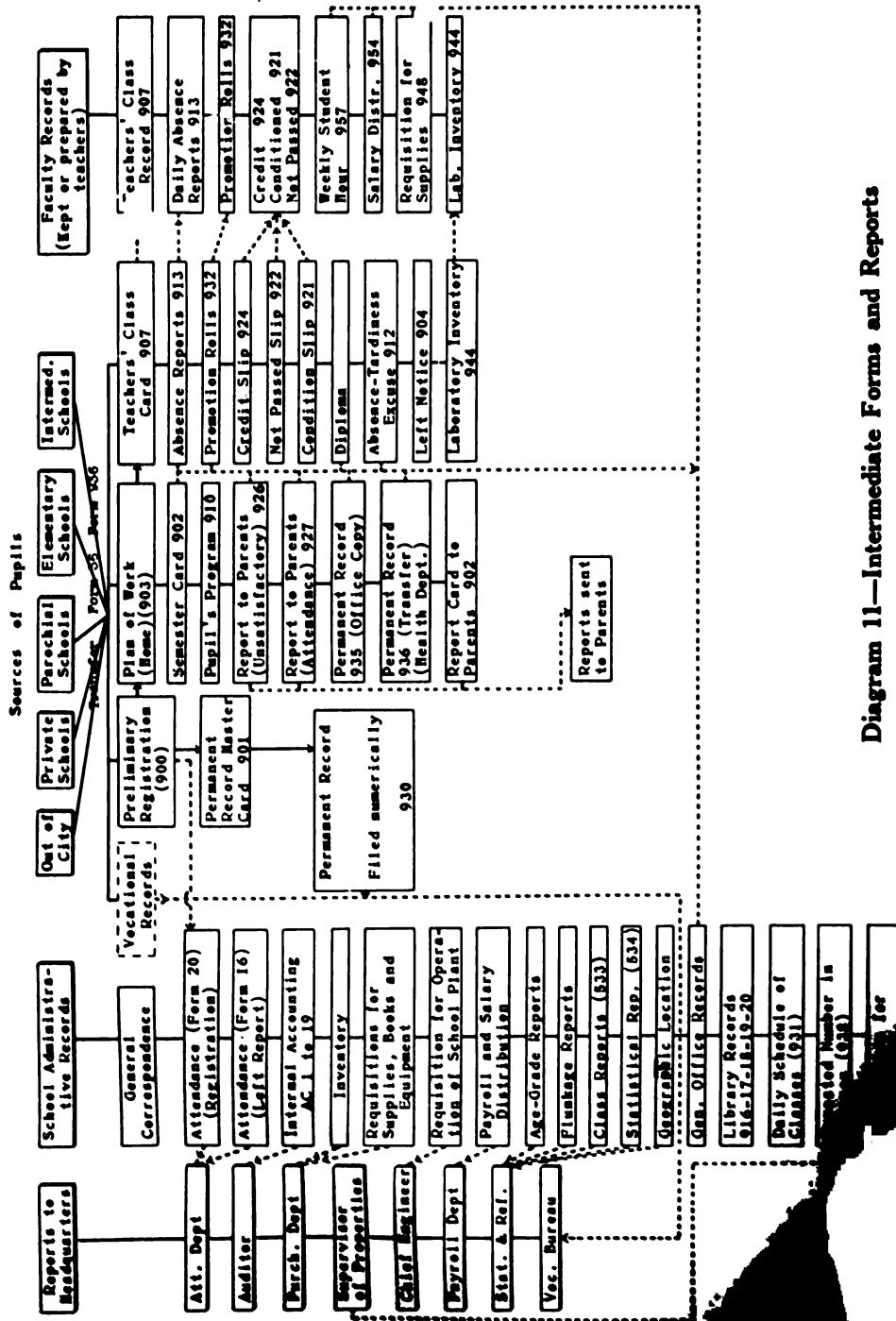


Diagram 11—Intermediate Forms and Reports



Northern High School

Part V—Buildings

STANDARD ELEMENTARY SCHOOL

THE standard elementary school plan was further developed and revised during 1921-22. The plan now in use provides for the development of the building in five sections if so desired. The ultimate plant provides accommodations for 1,920 children under the platoon organization, approximately 80 children in special classes and 240 in the kindergarten, a grand total of 2,240.

If built in sections the first unit comprises 12 classrooms and kindergarten; the first and second sections, 18 classrooms and kindergarten; the first three sections 20 classrooms, kindergarten, library, auditorium, gymnasium and teachers' rest room; the first four sections 23 classrooms, kindergarten, sewing room, wood shop, art studio, two gymnasiums, two auditoriums, library and administrative quarters. An open air unit may be constructed on the third floor. The accommodations in the entire unit would be as follows:

First floor		1 Lunch room .....22'x26'
2 Special rooms .....22'x30'		Second floor
2 Kindergarten .....22'x30'		24 Home rooms .....22'x30'
1 Kindergarten toilet		1 Special room .....22'x30'
2 Girls' toilets		2 Girls' toilets
2 Boys' toilets		2 Boys' toilets
1 Janitor's room		1 Teachers' toilet
4 Science rooms .....22'x30'		1 Teachers' room .....22'x40'
4 Literature rooms .....22'x30'		1 Boy's play roof.....40'x60'
2 Music rooms .....22'x30'		1 Girls' play roof.....40'x60'
2 Art rooms .....22'x30'		
1 Sewing room .....22'x30'		Third floor
1 Medical Dept. (Clinic)		2 Class rooms .....22'x28'
1 Manual Training room....22'x30'		1 Class room .....22'x44'
1 Library .....22'x44'		1 Boys' toilet
1 Children's library .....22'x28'		1 Girls' toilet
1 Administration Dept.		1 Janitor's room
1 Auditorium .....32'x48'		1 Teachers' room .....22'x24'
1 Auditorium .....32'x31'		1 Sun room .....22'x60'
1 Boys' lockers and showers.19'x29'		1 Dining room .....22'x32'
1 Girls' lockers and showers.19'x29'		1 Kitchen .....13'x22'
1 Boys' gymnasium .....40'x60'		1 Clinic
1 Girls' gymnasium .....40'x60'		1 Open air roof .....60'x160'
1 Physical Directors' Dept.		

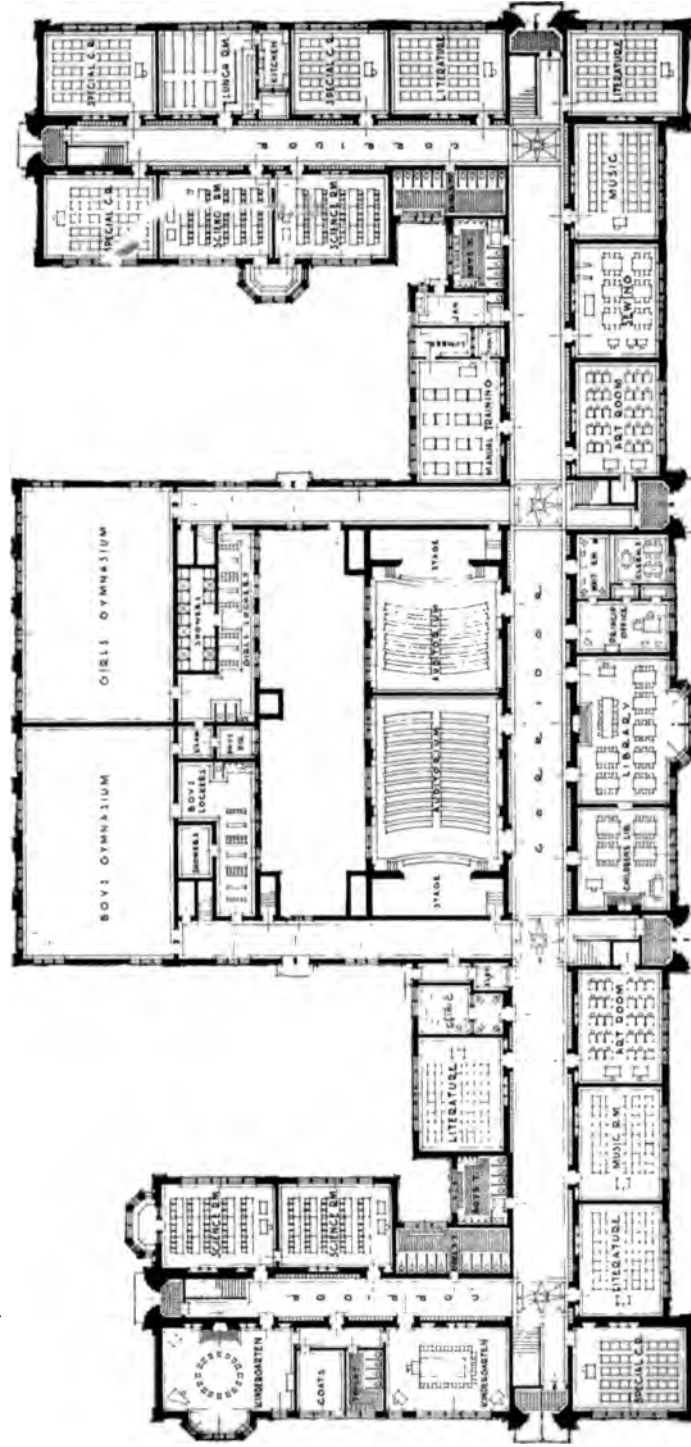


Diagram 12—First Floor, Standard Elementary School

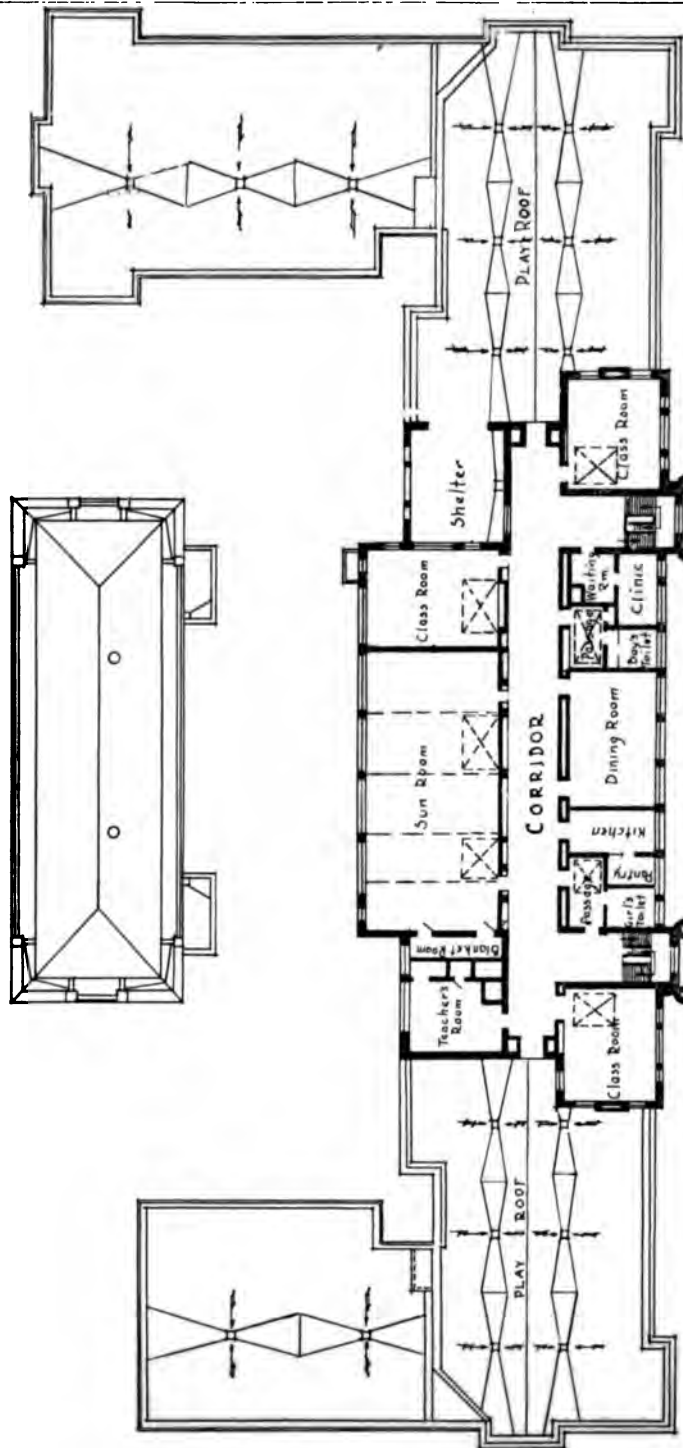


Diagram 14—Open Air Unit, Standard Elementary School

CAPACITY ADDED IN 1921-22

Capacity for 10,680 elementary pupils was provided during 1921-22. The intermediate units added 3,480 and the Southwestern high school, 800 capacity, released the Nordstrum building for elementary purposes. These data appear in the following table.

Table 12—School Capacity Added in 1921-22

Elementary	Month	Size of bldg. or addition	Standard capacity
School	occupied		
Balch	Sept., 1921	A-G-22 rooms	1,080
Brady	Nov., 1921	11 rooms and kdg.	500
Cooper	Sept., 1921	26 rooms	1,040
Crosman	Sept., 1921	A-G-2 rooms	240
Custer	Sept., 1921	A-G-18 rooms	860
Doty	Oct., 1921	A-G-4 rooms	320
Estabrook	Nov., 1921	A-G	160
Franklin	Apr., 1922	A-2G-2 kdg., 16 rooms, 3 sp.-lib.	1,060
George	Sept., 1921	A-G-2 rooms, 20 A rooms	280
Hely	Sept., 1921	Extend gym	
Holmes, A. L.	Feb., 1922	A-G-8 rooms	480
Houghton	Sept., 1921	A-G-4 rooms	320
Lynch	Feb., 1922	7 rooms and kdg.	340
Marr	Sept., 1921	A-G	160
Marxhausen	Sept., 1921	A-G-4 rooms	320
Maybee	Feb., 1922	8 rooms	320
Noble	Nov., 1921	11 rooms and kdg.	500
Pierce	Jan., 1922	5 rooms and kdg.	260
Sampson	Oct., 1921	9 rooms and D. S.	360
Thirkell	Sept., 1921	A-G-4 rooms	320
White	Sept., 1921	A-G-18 rooms	860
Wingert	Feb., 1922	A-G-6 rooms	400
Winterhalter	Jan., 1922	11 rooms and kdg.	500
Total elementary			10,680
Intermediate			
Barbour	Feb., 1922	Standard	1,800
McMichael	Dec., 1921	Pools—alterations	60
McMichael	May, 1922	Girls' gym and pool	120
Hutchins	Feb., 1922	Standard	1,500
Total intermediate			3,480
High			
Cass Annex	Feb., 1922	First five floors (Section A)	
Southwestern	Apr., 1922	New unit	800
Special			
Leland			
(cripples)	Sept., 1921	A-8 rooms	
Maybee			
(O. A.)	Sept., 1921	2 classrooms	

SCHOOL BUILDING COSTS

Three additions and one first unit of a new building were considered in 1921-22 in showing the comparative cost by years. The variation in cost of the additions is due to the fact that the adjustments made in connection with the present buildings differ somewhat in each case. The cost of 34 cents per cubic foot may be considered as a fair index of the 1921-22 price. This is from three cents to five cents lower than in 1920-21. This is shown in the following diagram and detailed table.

Diagram 15

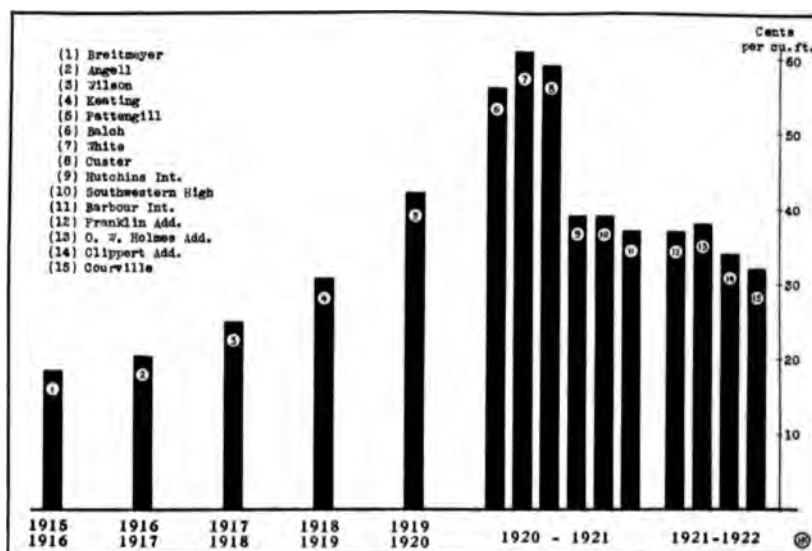


Table 13—School Building Cost per Cubic Foot, 1915-22

Year of Building	School	Total cost	Total cubeage	Cost per cu. ft.
1915-16	(1) Breitmeyer	\$113,586.78	616,129	\$0.185
1916-17	(2) Angell	138,214.55	673,612	.205
1917-18	(3) Wilson	226,453.75	904,116	.250
1918-19	(4) Keating	254,589.66	824,908	.308
1919-20	(5) Pattengill	347,871.50	824,908	.421
1920-21	(6) Balch	656,712.21	1,170,571	.560
1920-21	(7) White	456,546.78	746,119	.610
1920-21	(8) Custer	442,699.73	746,119	.590
1920-21	(9) Hutchins Int.	950,800.00	2,504,642	.390
1920-21	(10) Southwestern H. S.	696,933.00	1,753,179	.390
1920-21	(11) Barbour Int.	1,073,736.00	2,994,780	.370
1921-22	(12) Franklin Add.	399,113.97	1,090,353	.370
1922-23	(13) O. W. Holmes Add.	180,295.50	471,644	.380
1922-23	(14) Clippert Add.	200,390.40	584,744	.340
1922-23	(15) Courville	137,979.02	428,215	.320

Part VI—Finance

THE cost report of the Board of Education of the City of Detroit, presented in the following pages, has been prepared from the cost records of the business manager's office for the fiscal year ending June 30, 1922.

During the year 11,361 vouchers were paid, with disbursements amounting to \$25,240,116.43.

Cash discounts deducted from invoices amounted to \$8,002.98 and this saving is exclusive of educational discounts.

The cost of land, buildings and equipment to June 30, 1922 is placed at \$43,032,568.53. This amount is equal to the amount of money spent during the life of the Board of Education from the building fund. The value of the above property has never been determined by an appraisal or otherwise. The value of books, supplies and equipment in the schools, some of which have been in use a long time, is \$2,972,295.19, an amount equal to \$17.60 per pupil.

The different elements of cost contained in the conduct of the school plant are as follows:

Administration	\$ 544,614.51	4.2%
Instruction, including general supervision	10,450,528.58	81.2%
Auxiliary agencies and sundry activities	145,109.06	1.1%
Expense of fixed charges	59,199.44	.5%
Operation of school plant	1,415,596.36	10.9%
Maintenance of school plant	272,347.04	2.1%

Total \$ 394.99 100.0%

The per capita cost of the school plant is \$16.43.

Administration Cost

Educational and business administration consists of the salaries and supplies of the superintendent, assistant superintendents, business manager and clerks in these offices. This amounts to 4.2%. The median for the country is 4.4%.

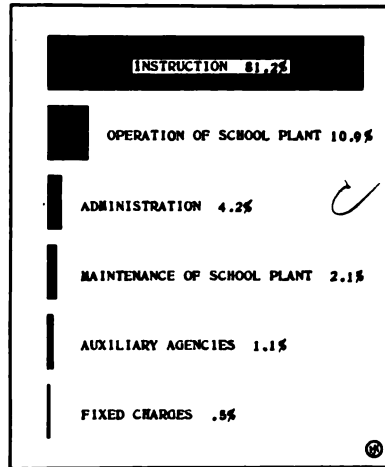


Diagram 16

Instruction Cost

Teaching cost and administrative school cost has been set up so as to show the two elements of instruction cost separately. Teaching cost consists of teachers' salaries and supplies used in teaching. Salaries of the principals, grade principals, clerks, bookkeepers, librarians and administrative school supplies, constitute the administrative school cost. The supervisory cost is included in the total instruction cost. A comparative per capita cost of instruction is included in these reports. The median percentage of the maintenance expenditures devoted to instruction in the country is 74.3%. Detroit spends 81.2% for instruction.

Operation Cost

The operation cost consists of engineers' and janitors' salaries, supplies, gas, electricity and fuel. The operation cost amounts to 10.9%. The median for the country is 12.8%.

Maintenance Cost

Maintenance cost consists of repairs to buildings and equipment, replacement of equipment, insurance and still alarm service. This was 2.1%, while the country as a whole spends 1.1% for this item.

**Table 15—Statement of the Cash Disbursements for the
Year Ending June 30, 1922**

Cash disbursements for July, 1921.....	\$ 1,285,997.40
Cash disbursements for August, 1921.....	1,427,343.52
Cash disbursements for September, 1921.....	2,562,081.81
Cash disbursements for October, 1921.....	2,402,876.59
Cash disbursements for November, 1921.....	2,286,765.08
Cash disbursements for December, 1921.....	2,201,194.93
Cash disbursements for January, 1922.....	2,154,666.06
Cash disbursements for February, 1922.....	2,183,470.27
Cash disbursements for March, 1922.....	2,753,355.22
Cash disbursements for April, 1922.....	2,183,109.68
Cash disbursements for May, 1922.....	2,022,275.12
Cash disbursements for June, 1922.....	1,776,980.75

Total cash disbursements.....	\$25,240,116.43
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Disbursed as Follows

Conduct of the school plant.....	\$12,887,394.99
Repayment of loan.....	15,000.00
Evening high school fees refunded.....	21,085.00
Institute fees refunded.....	2,568.50
Adjustments and supplies, materials and equip- ments to stock.....	63,976.76

Building fund—

Purchase of land.....	\$2,694,353.23
Improvements to site.....	272,814.43
Buildings under construction.....	8,091,818.46
Equipments (exclusive of books, maps and charts).....	761,361.36
Equipments (books, maps and charts).....	83,644.46
Improvements to buildings.....	346,099.24

Total cash disbursements.....	\$25,240,116.43
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Table 18 (a)—Statement of the Cost of Operation of the School Plant for the Year Ending June 30, 1922

Salaries—Engineers, assistants and coal passers...	\$426,113.50	
Salaries—Janitors and cleaners.....	558,989.69	
Supplies—Engineers and janitors.....	24,544.89	
Gas	7,138.46	
Electricity	9,045.66	
Fuel	365,789.44	
Telephone	23,974.72	\$1,415,596.36

Table 18 (b)—Statement of the Cost of Maintenance of the School Plant for the Year Ending June 30, 1922

Repairs to buildings and equipment—labor.....	\$183,810.18	
Repairs to buildings and equipment—materials...	75,147.44	
Insurance	352.24	
Replacement of engineers' and janitors' equipment	5,231.83	
Replacement of other equipment.....	6,920.35	
Still alarm service.....	885.00	\$272,347.04



Stun

School

**Table 19a—Statement of the Student Hour and Per
Capita Cost of the Detroit Public Schools for the Year Ending June 30, 1922**

SCHOOLS	Teaching cost	Adminis- trative school cost	Total Instruction cost	Operation	Mainte- nance	Business adminis- tration	Educa- tional adminis- tration	Supervision	Total cost	Aver- age mem- bership	Total student hours
Elementary *	\$4,482,121.53	\$614,498.84	\$5,096,620.37	\$759,310.07	\$152,215.08	\$114,775.50	\$156,769.30	\$122,978.27	\$6,402,668.59	91,347	74,628,738
Specials	469,739.93	42,153.93	511,893.86	37,644.15	7,546.34	11,509.78	15,720.95	12,345.31	596,660.39	6,089	3,780,946
Intermediate **	1,799,161.35	310,279.58	2,109,440.93	314,723.12	33,588.59	47,420.28	64,770.31	50,805.70	2,620,748.93	23,707	21,486,995
Comprehensive High:	829,368.85	197,416.25	1,026,785.10	176,096.84	38,585.05	23,019.55	31,441.90	24,690.62	1,320,619.06	8,106	5,137,450
Cass Technical High ..	320,793.56	40,468.89	361,262.45	48,764.91	12,227.59	8,056.84	11,004.66	8,546.75	449,863.20	2,359	1,850,136
Continuation	231,765.90	17,470.52	249,236.42	35,312.52	8,854.47	5,524.69	7,546.06	5,935.24	312,409.40	3,212	1,327,000
Wilkins High School of Commerce	66,537.61	16,064.23	82,601.84	5,724.16	1,364.19	1,841.56	2,515.35	1,899.28	95,946.38	808	577,120
Det. Teachers College†	140,592.82	8,965.61	149,558.43	11,206.20	457.16	3,222.74	4,401.87	.....	139,302.27	641	288,072
Det. Junior College ..	.....	.....	.....	18,545.61	4,099.93	3,452.93	4,716.28	.....	180,373.18	1,129	582,305
Det. Coll. of Med. and Surg. ....	.....	.....	.....	7,878.40	1,309.19	1,933.64	2,641.12	.....	100,253.40	180	.....
Evening Schools	224,543.52	31,695.77	256,239.29	.....	.....	5,754.89	7,860.47	6,172.65	276,027.30	20,259	1,729,278
Summer Schools	142,668.78	20,305.97	162,974.75	.....	.....	3,683.14	5,030.70	4,035.97	175,724.56	13,016	1,705,672
Auxiliary Agencies and Fixed Charges .....	.....	.....	.....	.....	.....	.....	.....	.....	204,308.50	.....	.....
Operating Depts. ....	.....	.....	.....	390.38	12,099.45	.....	.....	.....	12,489.83	.....	.....
Totals	\$8,707,293.85	\$1,299,319.59	\$10,213,118.79	\$1,415,596.36	\$272,347.04	\$230,195.54	\$314,418.97	\$237,409.79	\$12,887,394.99	168,906	1,130,999,612

Table 19b—Student Hour Cost of Above Activities

SCHOOLS	Teaching cost	Administrative school cost	Total Instruction cost	Operation	Maintenance	Business administration	Educational administration	Supervision	Total cost
Elementary*	\$.0601	\$.0082	\$.0683	\$.0102	\$.0019	\$.0018	\$.0021	\$.0016	\$.0859
Specials.....	.1241	.0111	.1352	.0099	.0020	.0030	.0042	.0033	.1576
Intermediate**	.0838	.0144	.0982	.0146	.0016	.0022	.0030	.0024	.1220
Comprehensive High†	.1615	.0384	.1999	.0343	.0074	.0045	.0061	.0048	.2570
Case Technical High	.1734	.0219	.1953	.0264	.0065	.0044	.0059	.0046	.2431
Continuation.....	.1746	.0132	.1878	.0266	.0066	.0042	.0057	.0045	.2354
Wilkins High School of Commerce.....	.1153	.0278	.1431	.0099	.0024	.0032	.0044	.0033	.1663
Det. Teachers College†	.2414	.0154	(c) .0451	.0389	.0016	.0112	.0152	.0081	.4720
Det. Junior College			.2568	.0319	.0071	.0059	.0081		.3098
Det. Coll. of Med. and Surg. (b)						.0033	.0045	.0036	.1596
Evening Schools.....	.1298	.0184	.1482			.0022	.0029	.0024	.1030
Summer Schools.....	.0836	.0110	.0955						

Table 19c—Per Capita Cost of Above Activities

SCHOOLS	Teaching cost	Administrative school cost	Total Instruction cost	Operation	Maintenance	Business administration	Educational administration	Supervision	Total cost
Elementary*	\$.49.07	\$ 6.73	\$ 55.80	\$ 8.30	\$ 1.07	\$ 1.26	\$ 1.72	\$ 1.34	\$ 70.09
Specials.....	77.15	6.92	84.07	6.18	1.24	1.89	2.58	2.03	97.99
Intermediate**	75.89	13.09	88.98	13.27	1.42	2.00	2.73	2.14	110.54
Comprehensive High†	102.32	24.35	126.67	21.72	4.76	2.84	3.88	3.05	162.92
Case Technical High	135.99	17.16	153.15	20.67	5.18	3.42	4.65	3.62	190.69
Continuation.....	72.16	5.44	77.60	10.99	2.76	1.72	2.35	1.85	97.27
Wilkins High School of Commerce.....	82.35	19.88	102.23	7.08	1.69	2.28	3.11	2.35	118.74
Det. Teachers College†	124.53	7.94	(c) 182.03	17.48	.71	5.03	6.87		212.12
Det. Junior College			132.47	16.43	3.63	3.06	4.17		159.76
Det. Coll. of Med. and Surg.						10.74	14.67	.30	556.95
Evening Schools.....	11.08	1.56	12.64	43.77	7.27	.28	.39	.31	13.61
Summer Schools.....	10.96	1.56	12.52			.28	.39		13.50

* Includes kindergartens, grades 1 to 6 inc.

** Grades 7, 8, 9.

† Grades 10, 11, 12. † Includes rural schools.

* 1947 defective speech pupils are also counted in the various grades.

(b) Student hours not furnished.

(c) Student hour and per capita cost of instruction, exclusive of rural schools.



Balch School Gymnasium



Balch School Swimming Pool

Part VII—Statistical Studies

MEMBERSHIP AND PERCENT OF ATTENDANCE

1919-20 to 1921-22

Kindergarten

Kindergarten membership showed a healthy and consistent increase over 1920-21. The peak of the curve occurs in January. There is the usual drop between the first and second semester. Attendance fell between the 1919-20 and 1920-21 curves, showing a more regular tendency than in the other years.

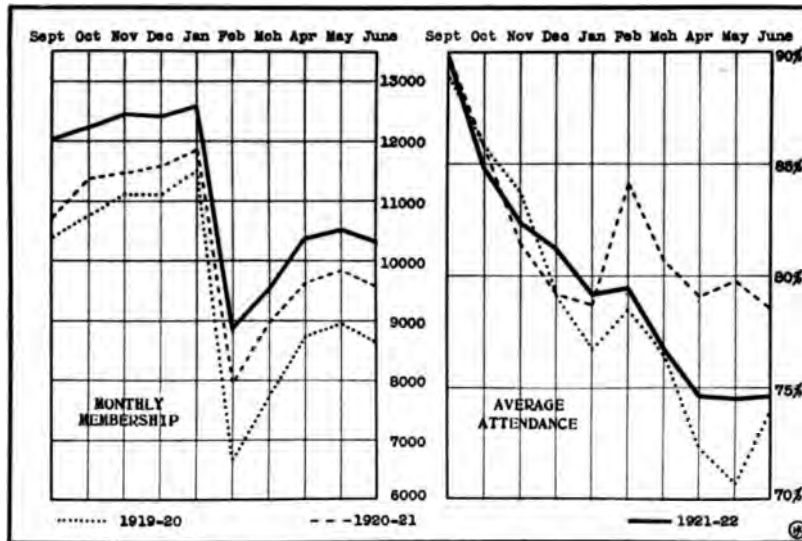


Diagram 17

Table 20—Kindergarten Membership and Attendance

Month	Membership			Percent of attendance—		
	1919-20	1920-21	1921-22	1919-20	1920-21	1921-22
September	10,370	10,697	12,053	88.9	89.8	89.8
October	10,750	11,354	12,241	85.8	85.7	84.8
November	11,197	11,447	12,463	83.7	81.4	82.3
December	11,185	11,553	12,417	79.1	79.2	81.2
January	11,478	11,837	12,582	76.7	78.7	79.2
February	6,662	7,944	8,845	78.5	84.1	79.5
March	7,722	8,953	9,515	76.5	80.7	75.7
April	8,725	9,639	10,376	72.3	79.1	74.6
May	8,891	9,841	10,520	70.7	79.8	74.5
June	8,630	9,583	10,320	73.9	78.6	74.6

First Grade

The membership curve is below that of 1920-21. This difference was 583 in September and 1305 in June. Carpenter school when returned to Hamtramck had 379 first graders. Attendance paralleled that of 1920-21 through January but dropped below during the second semester.

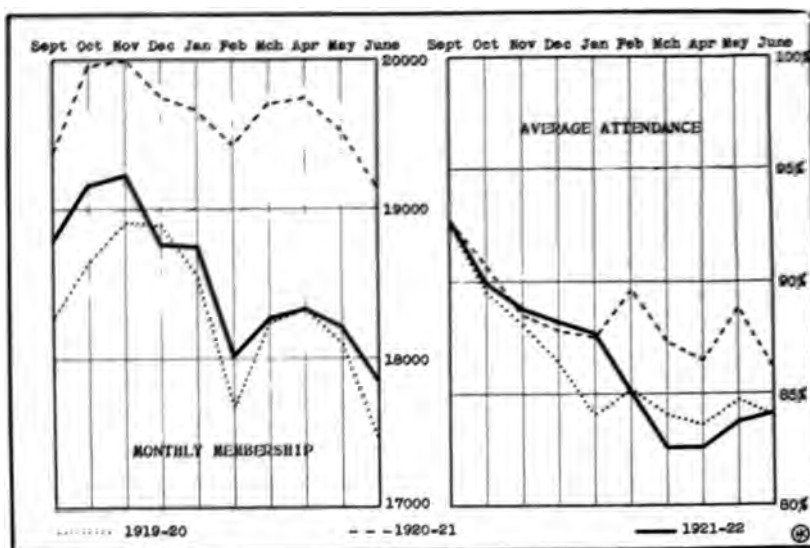


Diagram 18

Table 21—First Grade Membership and Attendance

Month	Membership			Percent of attendance		
	1919-20	1920-21	1921-22	1919-20	1920-21	1921-22
September	18,270	19,371	18,788	92.7	92.7	93.7
October	18,636	19,956	19,156	89.5	90.7	89.9
November	18,905	20,002	19,222	88.1	88.5	88.8
December	18,888	19,745	18,762	86.4	87.8	88.2
January	18,555	19,658	18,746	84.1	87.5	87.7
February	17,663	19,431	18,023	85.2	89.6	85.1
March	18,242	19,704	18,269	84.1	87.3	82.6
April	18,334	19,739	18,323	83.6	86.5	82.6
May	18,101	19,525	18,206	84.7	88.8	83.7
June	17,446	19,153	17,848	84.1	86.2	84.1

Second Grade

Second grade membership in September was 2567 above 1920-21 and 1970 higher in June.

The attendance curve followed 1920-21 the first semester but dropped below during the second half of the year.

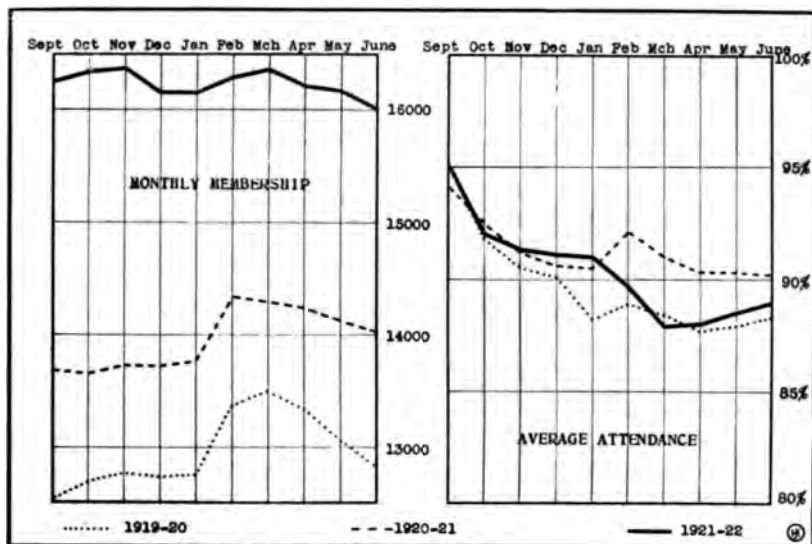


Diagram 19

Table 22—Second Grade Membership and Attendance

Month	Membership			Percent of attendance—		
	1919-20	1920-21	1921-22	1919-20	1920-21	1921-22
September	12,545	13,687	16,254	95.0	94.1	95.0
October	12,692	13,800	16,157	91.8	92.5	92.0
November	12,760	13,900		90.5	91.2	91.3
December	12,728	14,000		90.1	90.6	91.1
January	12,751	14,100		88.2	90.5	
February		14,340		89.9	92.1	
March		14,296			91.0	
April		14,440			90.3	
May			16,000		91.3	
June						

Third Grade

Third grade September membership increased 1228 over 1920-21 and in June had 1510 more pupils.

Attendance fell between the 1919-20 and the 1920-21 curves.

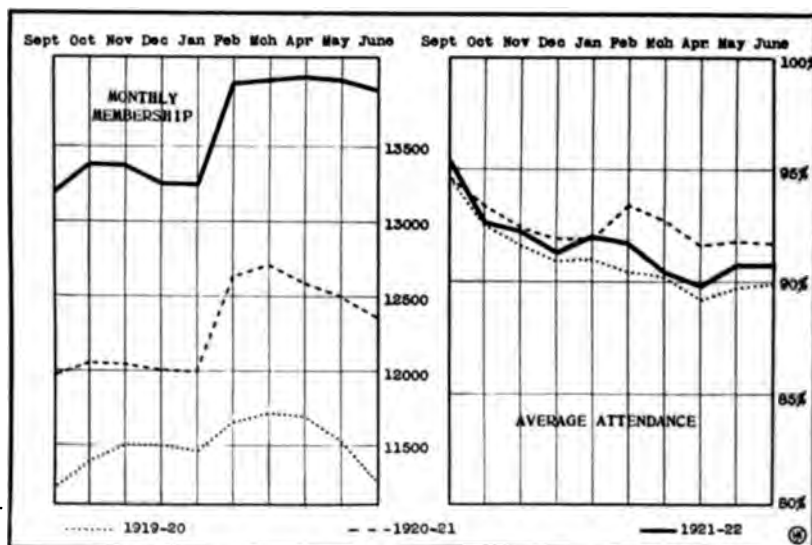


Diagram 20

Table 23—Third Grade Membership and Attendance

Month	Membership			Percent of attendance		
	1919-20	1920-21	1921-22	1919-20	1920-21	1921-22
September	11,220	11,967	13,195	94.6	94.6	95.0
October	11,376	12,049	13,383	92.5	93.4	92.5
November	11,502	12,045	13,371	91.6	92.4	92.5
December	11,497	12,008	13,252	90.9	91.9	91.9
January	11,456	11,993	13,241	91.0	91.9	91.9
February	11,648	12,624	13,921	90.4	93.4	93.4
March	11,709	12,706	13,930	90.2	92.2	92.2
April	11,689	12,581	13,968	89.2	91.2	91.2
May	11,519	12,504	13,940	89.7	90.7	90.7
June	11,249	12,359	13,869	89.9	90.2	89.9

Fifth Grade

The fifth grade fell below the 1920-21 curve for the first semester but jumped in the second, the June difference being 594.

The attendance curve followed the general trend between those of the two preceding years.

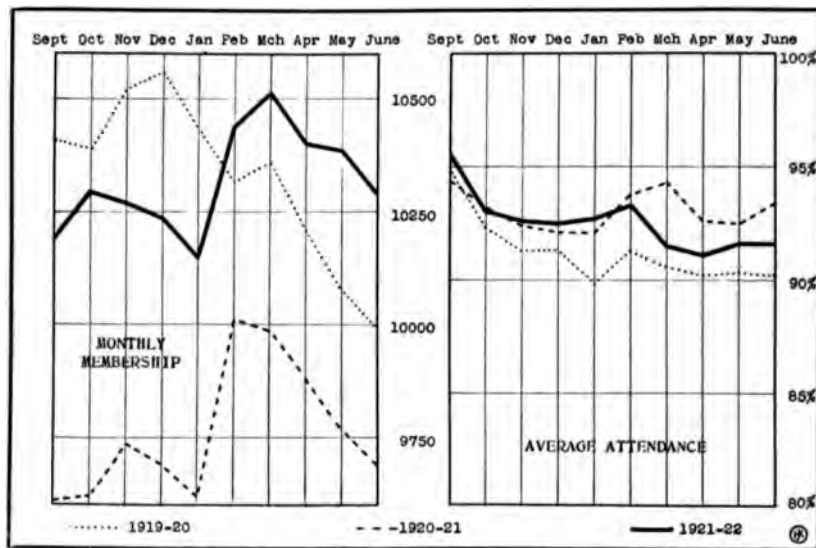


Diagram 22

Table 25—Fifth Grade Membership and Attendance

Month	Membership			—Percent of attendance—		
	1919-20	1920-21	1921-22	1919-20	1920-21	1921-22
September	10,407	9,610	10,193	94.8	94.4	95.5
October	10,391	9,620	10,293	92.3	93.2	93.0
November	10,521	9,736	10,269	91.3	92.4	92.6
December	10,558	9,692	10,234	91.3	92.1	92.5
January	10,436	9,621	10,147	89.9	92.1	92.7
February	10,316	10,096	10,439	91.3	93.8	93.3
March	10,360	9,985	10,509	90.6	94.3	91.5
April	10,210	9,883	10,402	90.2	92.6	91.1
May	10,080	9,768	10,384	90.3	92.5	91.6
June	9,912	9,687	10,281	90.2	93.4	91.6

Sixth Grade

The sixth grade membership was practically even with that of 1920-21 during the first semester. During the second half of the year it jumped above that of 1920-21, the June difference being 463.

Attendance fell between the 1919-20 and 1920-21 curves.

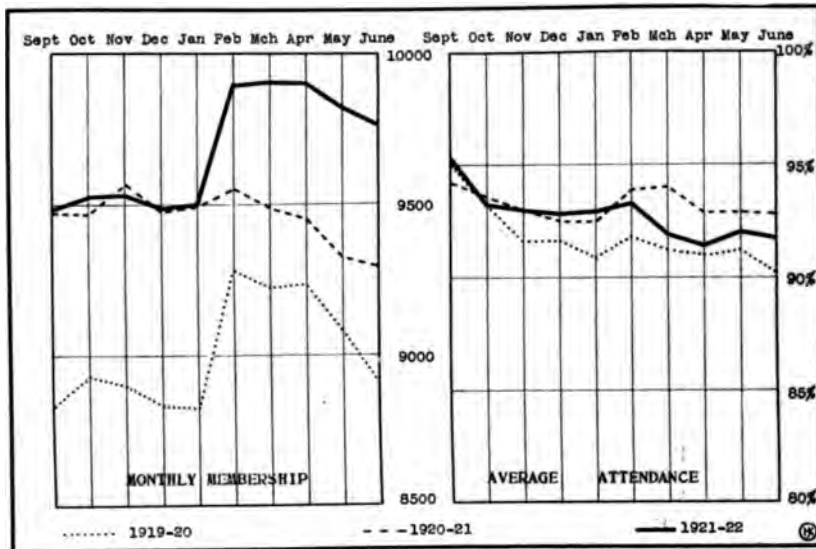


Diagram 23

Table 26—Sixth Grade Membership and Attendance

Month	Membership			Percent of attendance—		
	1919-20	1920-21	1921-22	1919-20	1920-21	1921-22
September	8,830	9,470	9,484	95.0	94.2	95.3
October	8,929	9,467	9,525	93.2	93.6	93.2
November	8,898	9,564	9,532	91.6	93.0	93.0
December	8,833	9,476	9,485	91.6	92.5	92.8
January	8,823	9,493	9,494	90.9	92.5	92.9
February	9,279	9,553	9,896	91.8	93.9	93.3
March	9,222	9,492	9,906	91.2	94.0	91.9
April	9,233	9,493	9,903	91.0	92.9	91.4
May	9,077	9,493	9,917	91.2	92.9	92.0
June	9,009	9,493	9,963	90.2	92.8	91.7

Ninth Grade

There were 2158 more pupils in the ninth grade in September, 1922, than in the preceding year. The same sharp June falling off noticeable in the eighth grade occurred here, the June difference falling to 887.

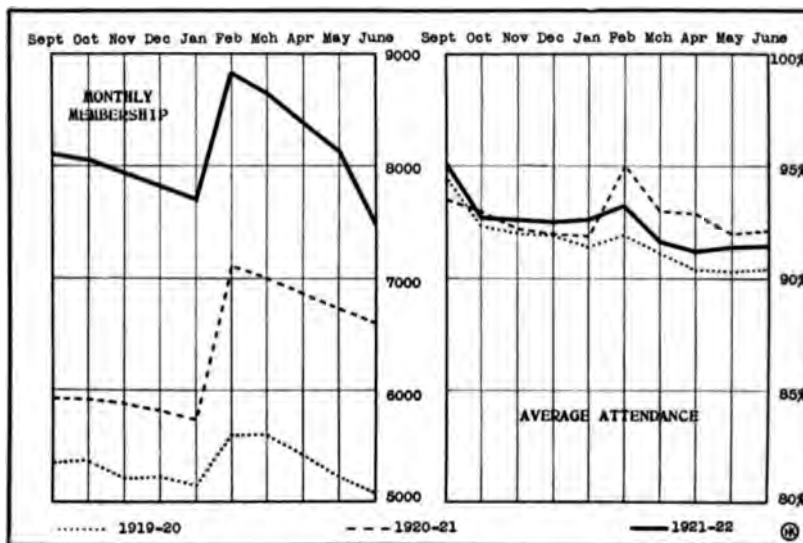


Diagram 26

Table 29—Ninth Grade Membership and Attendance

Month	Membership			Percent of attendance		
	1919-20	1920-21	1921-22	1919-20	1920-21	1921-22
September	5,353	5,933	8,091	94.4	93.5	95.0
October	5,367	5,921	8,050	92.3	93.0	92.7
November	5,212	5,893	7,919	92.0	92.2	92.6
December	5,215	5,823	7,817	91.9	92.0	92.5
January	5,151	5,736	7,699	91.4	91.9	92.6
February	5,600	7,103	8,829	91.9	95.0	93.2
March	5,609	7,011	8,653	91.1	93.0	91.6
April	5,425	6,857	8,391	90.4	92.9	91.2
May	5,226	6,717	8,127	90.3	92.0	91.4
June	5,074	6,594	7,481	90.4	92.1	91.4

Eleventh Grade

Eleventh grade showed a sharp falling off in June. The September, 1922, membership was 608 greater than in 1921 and the June membership was 119 greater.

Attendance followed the general tendency.

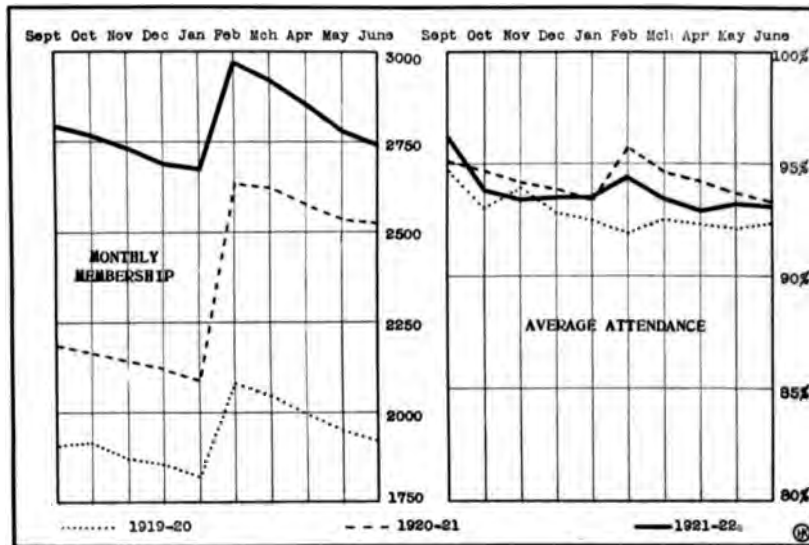


Diagram 28

Table 31—Eleventh Grade Membership and Attendance

Month	Membership			—Percent of attendance—		
	1919-20	1920-21	1921-22	1919-20	1920-21	1921-22
September	1,907	2,186	2,794	94.7	95.1	96.2
October	1,915	2,166	2,760	93.0	94.7	93.8
November	1,872	2,144	2,733	93.9	94.2	93.4
December	1,856	2,123	2,690	92.8	93.9	93.5
January	1,822	2,095	2,676	92.5	93.4	93.5
February	2,079	2,635	2,977	91.9	95.7	94.4
March	2,045	2,622	2,920	92.5	94.6	93.4
April	1,994	2,578	2,853	92.3	94.2	92.9
May	1,948	2,536	2,779	92.1	93.7	93.2
June	1,922	2,524	2,743	92.3	93.3	93.1

Twelfth Grade

The twelfth grade curve tendencies were similar to those of the preceding years but more accentuated. There were 414 more in September membership and 542 more in June membership.

Attendance was slightly higher than 1920-21 the first semester but dropped somewhat during the second.

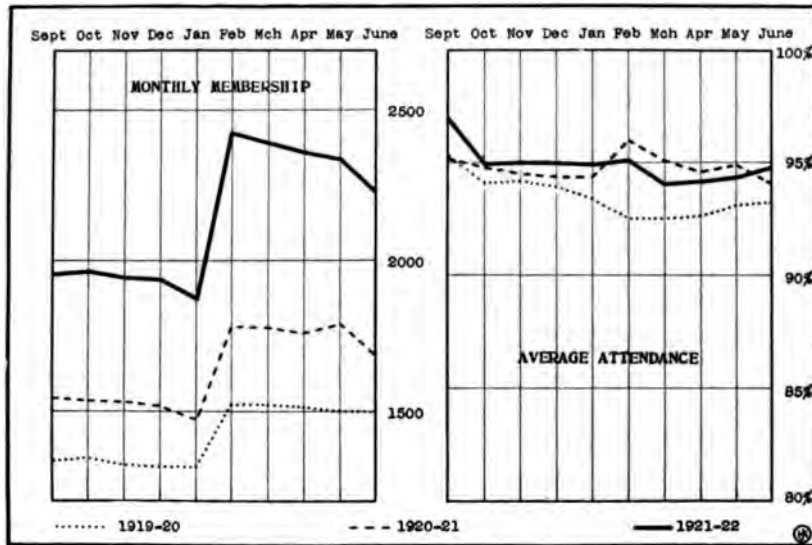


Diagram 29

Table 32—Twelfth Grade Membership and Attendance

Month	Membership			Percent of attendance—		
	1919-20	1920-21	1921-22	1919-20	1920-21	1921-22
September	1,335	1,542	1,956	95.3	95.2	96.9
October	1,346	1,536	1,963	94.1	94.8	94.9
November	1,323	1,531	1,943	94.2	94.5	95.0
December	1,314	1,516	1,937	93.9	94.4	95.0
January	1,317	1,476	1,872	93.4	94.4	94.9
February	1,526	1,784	2,425	92.5	96.0	95.1
March	1,521	1,777	2,388	92.5	95.1	94.0
April	1,515	1,762	2,360	92.6	94.6	94.1
May	1,503	1,789	2,334	93.1	94.9	94.3
June	1,501	1,688	2,230	93.2	94.1	94.7

Colleges

Detroit Junior College September, 1922 membership was 423 higher than in 1921, and that in June, 1922 was 427 above the preceding year. The peak occurred at the beginning of the second semester when 1415 were in membership. This dropped to 1160 in June.

Detroit Teachers College increased 289 over September 1920, and 249 over June, 1921. The membership peak came in February with 702 and held consistently throughout the second semester.

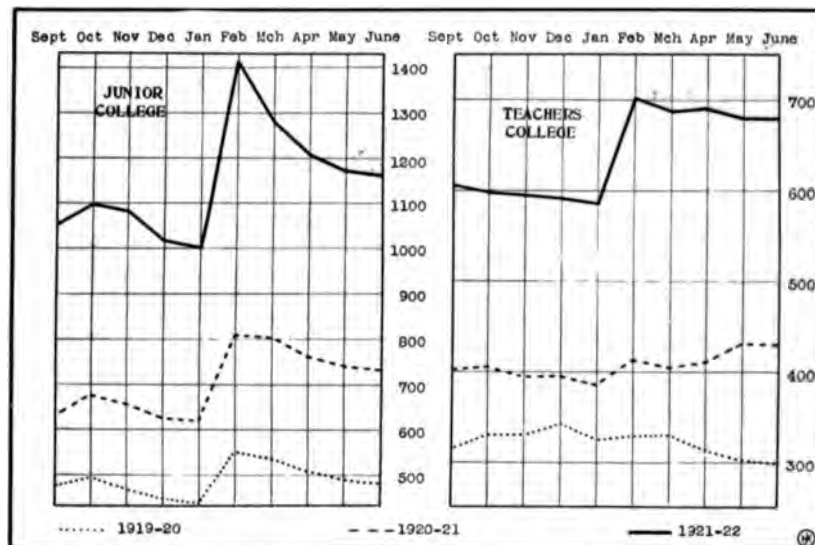


Diagram 30

Table 33—College Membership and Attendance

A—Detroit Junior College

B—Detroit Teachers College

Month	Membership—			Pct. of attendance			Membership—			Pct. of attendance		
	1919- 1920	1920- 1921	1921- 1922	1919- 1920	1920- 1921	1921- 1922	1919- 1920	1920- 1921	1921- 1922	1919- 1920	1920- 1921	1921- 1922
September	476	629	1,052	97.3	99.0	99.7	316	402	605	98.7	95.0	99.0
October	494	675	1,097	93.2	98.0	96.8	330	405	598	98.8	96.0	98.0
November	469	656	1,081	93.9	98.0	97.5	330	394	595	97.6	96.0	98.2
December	447	625	1,016	94.9	98.0	99.0	343	394	592	97.2	96.0	98.2
January	437	618	999	95.2	99.0	98.8	326	386	586	96.3	96.0	98.2
February	552	817	1,415	97.2	98.0	98.9	329	412	702	97.2	94.0	98.0
March	536	802	1,278	97.7	98.0	98.6	330	404	688	96.9	95.0	97.9
April	506	759	1,208	97.3	98.0	98.6	313	411	691	96.9	96.0	98.1
May	488	740	1,172	97.7	97.0	98.6	302	431	679	89.1	96.0	98.3
June	480	733	1,160	97.7	98.0	98.8	299	430	679	90.2	96.0	98.1

Continuation

The continuation curve in both the junior and senior divisions showed steady increases over 1920-21. The junior curve shows a sharp drop during June but the senior curve shows a consistent drop beginning in March.

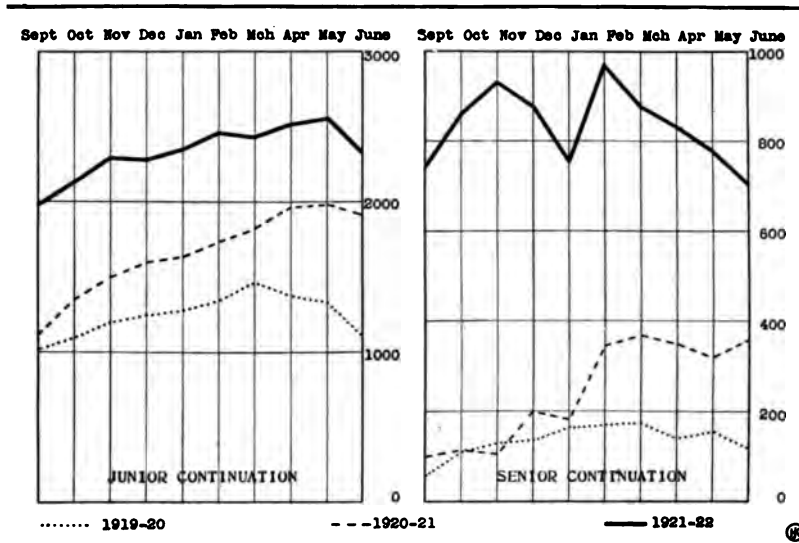


Diagram 31

Table 34—Continuation Classes Membership

Month	Junior Continuation			Senior Continuation		
	1919-20	1920-21	1921-22	1919-20	1920-21	1921-22
September	1,018	1,121	1,976	59	99	745
October	1,001	1,349	2,128	110	112	859
November	1,135	1,209	2,291	128	106	931
December	1,240	1,200	2,284	134	200	877
January	1,274	1,200	3,347	164	100	754
February	1,344	1,200	2,200	170	100	968
March	1,366	1,200	1,200	175	100	878
April	1,300	1,200	1,200	141	100	833
May	1,200	1,200	1,200	156	100	838
June	1,200	1,200	1,200	117	100	704

Entire System

The average membership for the entire system showed an increase of 543 pupils, 10.2%, over 1920-21. The September difference was 14,702 and the June increase was 10,928.

The average attendance ranged from 94.7% in September to 88.9% in June, an average for the year of 89.7%. This is slightly higher than 19-20 and slightly below 1920-21.

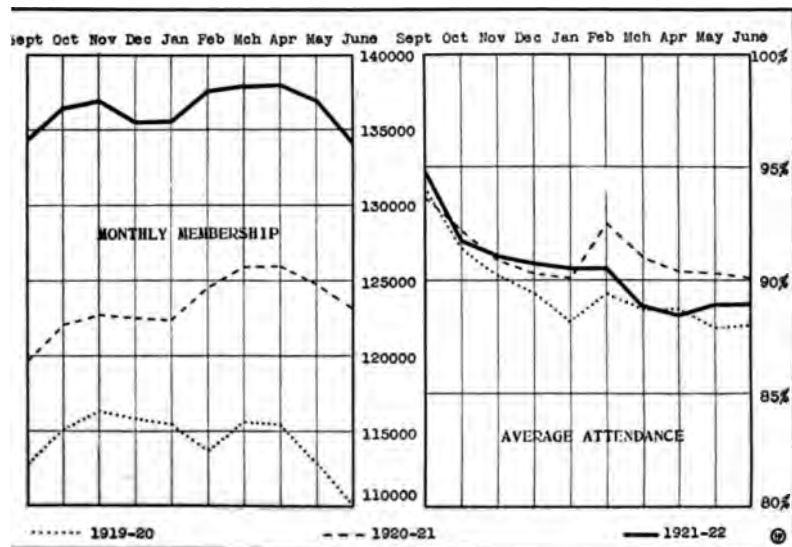


Diagram 33

Table 36—Membership and Attendance—Entire System

Month	Membership			Percent of attendance		
	1919-20	1920-21	1921-22	1919-20	1920-21	1921-22
September	112,806	127,508	127,000	94.0	93.6	94.7
October	115,117	127,508	127,000	91.4	92.2	91.7
November	116,284	127,508	127,000	90.2	90.9	91.0
December	122,377	127,508	127,000	89.4	90.3	90.7
January	122,377	127,508	127,000	88.2	90.1	90.1
February	124,514	127,508	127,000	90.4	92.5	90.0
March	127,508	127,508	127,000	91.0	91.0	91.0
April	127,508	127,508	127,000	90.4	90.4	90.4
May	127,508	127,508	127,000	90.3	90.3	90.3
June	127,508	127,508	127,000	88.9	88.9	88.9
First semester	112,806	127,508	127,000	94.0	93.6	94.7
Second semester	112,806	127,508	127,000	88.9	88.9	88.9
School year	113,486	127,508	127,000	89.7	89.7	89.7

Table 37—Day School Registration, 1921-1922

Grades	1920-21			1921-22		
	Boys	Girls	Total	Boys	Girls	Total
KINDERGARTEN	8,879	8,776	17,655	9,372	9,414	18,786
1st	12,220	11,351	23,571	11,120	10,544	21,664
2nd	7,871	7,397	15,268	9,072	8,690	17,762
3rd	6,802	6,669	13,471	7,357	7,129	14,486
4th	6,146	6,231	12,377	6,428	6,527	12,955
5th	5,429	5,356	10,785	5,601	5,710	11,311
6th	5,279	5,350	10,629	5,214	5,203	10,417
TOTAL ELEMENTARY ...	43,747	42,354	86,101	44,792	43,803	88,595
7th	4,514	4,669	9,183	4,883	5,006	9,889
8th	3,416	3,540	6,956	4,130	4,354	8,484
9th	3,185	3,208	6,393	4,420	4,076	8,496
TOTAL INTERMEDIATE ..	11,115	11,417	22,532	13,433	13,436	26,869
10th	1,939	1,823	3,762	2,273	2,271	4,544
11th	1,174	1,147	2,321	1,548	1,348	2,896
12th	807	800	1,607	1,015	1,008	2,023
TOTAL HIGH	3,920	3,770	7,690	4,836	4,627	9,463
Americanization	108	69	177	228	160	388
Special A.	749	284	1,033	808	340	1,148
Special B.	473	190	663	662	282	944
Special Preparatory	340	339	679	290	170	460
Special Advanced	160	135	295	121	103	224
Ungraded	378	...	378	312	11	323
Open Air	165	153	318	143	146	289
Open Window .....	...	...	...	10	10	20
Classes for Blind.....	38	36	74	49	38	87
Classes for Crippled.....	79	74	153	118	96	214
Classes for Deaf.....	91	72	163	91	86	177
TOTAL SPECIAL CLASSES	2,581	1,352	3,933	2,832	1,442	4,274
Voc. Classes, Boys.....	256	...	256	45	...	45
Voc. Classes, Soldiers.....	481	22	503	706	37	743
Continuation Jr.	1,315	1,589	2,904	2,335	2,529	4,864
Continuation Sr.	278	352	630	145	356	501
Continuation B. ....	...	...	...	45	37	82
TOTAL CONTINUATION ..	1,593	1,941	3,534	2,525	2,922	5,447
Junior College	579	205	784	827	305	1,132
Detroit Teachers College....	12	455	467	17	613	630
College of Med. & Surg.....	166	5	171	174	6	180
TOTAL COLLEGES	757	665	1,422	1,018	924	1,942
Post Graduates	32	19	51	42	29	71
GRAND TOTAL	73,361	70,316	143,677	79,601	76,634	156,235

Table 38—Evening School Statistics, 1921-22

SCHOOL	ELEMENTARY						HIGH						TOTAL					
	Registration Men	Registration Women	Average Member- ship	Average attend- ance	Per cent attendance	Per cent attendance	Registration Men	Registration Women	Average Member- ship	Average attend- ance	Per cent attendance	Per cent attendance	Registration Men	Registration Women	Average Member- ship	Average attend- ance	Per cent attendance	Per cent attendance
Cass	880	54	502	352	70.2	70.2	3750	84	2515	1992	79.2	79.2	4630	138	3017	2344	77.7	77.7
Central	294	209	351	222	63.0	63.0	1106	1245	1466	890	60.7	60.7	1400	1454	1817	1112	61.2	61.2
Eastern	673	178	442	270	61.3	61.3	694	1030	958	548	57.2	57.2	1367	1208	1400	818	58.4	58.4
Northeastern	795	161	507	295	58.2	58.2	430	551	525	330	63.0	63.0	1032	712	1032	625	60.6	60.6
Northern	253	171	267	165	62.0	62.0	523	890	809	457	56.5	56.5	776	1051	1076	622	57.8	57.8
Northwestern	212	115	207	121	58.5	58.5	446	941	798	463	58.1	58.1	658	1005	1005	584	58.1	58.1
Southwestern	449	114	291	171	58.5	58.5	384	568	485	270	54.6	54.6	833	682	786	441	56.2	56.2
Southwestern	356	118	290	176	60.7	60.7	294	292	347	221	61.8	61.8	650	410	637	397	62.0	62.0
Western	157	43	126	79	62.7	62.7	297	491	432	266	61.5	61.5	454	534	558	345	61.5	61.5
Wilkins	436	360	574	420	73.2	73.2	542	530	623	383	61.5	61.5	542	534	623	383	61.5	61.5
Bishop	333	65	236	149	63.2	63.2	.....	.....	.....	.....	.....	.....	436	360	574	420	73.2	73.2
Davison	339	113	284	139	49.0	49.0	.....	.....	.....	.....	.....	.....	333	65	236	149	63.2	63.2
Duffield	417	210	372	206	55.4	55.4	.....	.....	.....	.....	.....	.....	439	113	284	139	49.0	49.0
Dwyer	522	124	323	182	57.0	57.0	.....	.....	.....	.....	.....	.....	417	210	372	206	55.4	55.4
Ellis	491	305	462	291	63.0	63.0	.....	35	28	20	60.0	60.0	522	159	351	202	57.0	57.0
Garfield	241	70	169	102	60.4	60.4	.....	.....	.....	.....	.....	.....	491	305	462	291	63.0	63.0
Hely	166	95	131	80	61.1	61.1	.....	.....	.....	.....	.....	.....	241	70	169	102	60.4	60.4
Morley	304	44	171	140	86.5	86.5	.....	.....	.....	.....	.....	.....	166	95	131	80	61.1	61.1
House of Correction	1083	.....	676	452	68.7	68.7	.....	.....	.....	.....	.....	.....	304	44	171	140	86.5	86.5
Foreign Women's	63	854	520	324	62.4	62.4	.....	.....	.....	.....	.....	.....	1083	44	676	452	67.1	67.1
Classes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	63	854	520	324	62.4	62.4
Total	8564	3403	6901	4345	62.9	62.9	8466	6647	8996	5840	64.9	64.9	17030	10050	15897	10185	64.1	64.1
Junior College	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	311	457	428	292	68.7	68.7
Teachers College	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	250	2567	3327	2691	80.9	80.9
Total College	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	561	3024	3755	2983	79.5	79.5
Grand Total	8564	3403	6901	4345	62.9	62.9	8466	6647	8996	5840	64.9	64.9	17591	13074	19652	13168	66.9	66.9
Community and Recreational not included in totals—	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bath	.....	.....	.....	.....	.....	.....	349	864	607	389	64.1	64.1	349	864	607	389	64.1	64.1

Table 39—Analysis of Evening School Registration by Course of Study

	—Elementary—		—High School—	
	Men	Women	Men	Women
Citizenship	1,327	6		
English for Foreigners.....	5,607	2,775		
Fifth and Sixth Grade.....	702	266		
Seventh and Eighth Grade.....	928	356		
Health			1,032	2,071
Languages			780	571
Exact Sciences			1,861	134
Social Sciences				
Vocational			5,076	4,672
Fine Arts			66	58
Total	8,564	3,403	8,815	7,511
Total Men and Women.....	11,967		16,326	
Grand Total			28,293	

Table 40—High Schools, 1921-1922

Schools	Total registration	Average membership	Average attendance	Percent attendance	No. belonging at close	No. instructors excluding prin., clerks	Pupils per instructor based on av. memb.	No. graduates	
								Boys	Girls
Cass	2,369	2,338.4	2,181.4	93.68	2,237	143	16.4	120	6
Central	1,964	1,865.8	1,732.5	92.90	1,771	86	21.7	195	199
Eastern	2,212	2,035.3	1,894.1	93.08	1,933	74	27.5	134	160
Northeastern ...	1,968	1,832.5	1,652.3	90.18	1,732	70	26.2	46	41
Northern	2,389	2,304.1	2,158.4	93.66	2,399	99	23.3	131	161
Northwestern ..	3,370	3,207.0	2,954.6	92.11	3,080	119	26.9	164	188
Southeastern ...	1,884	1,787.1	1,671.1	93.51	1,735	71	25.2	43	48
Southwestern ..	988	952.1	903.7	94.86	915	41	23.2	35	47
Western	1,261	1,211.5	1,122.5	92.66	1,064	49	24.7	83	81
Wilkins	763	808.3	729.4	90.23	784	31	26.1	4	29
TOTAL	19,168	18,342.1	17,000.0	92.68	17,650	783	23.4	955	960

Table 41—Census, Registration and Membership Growth

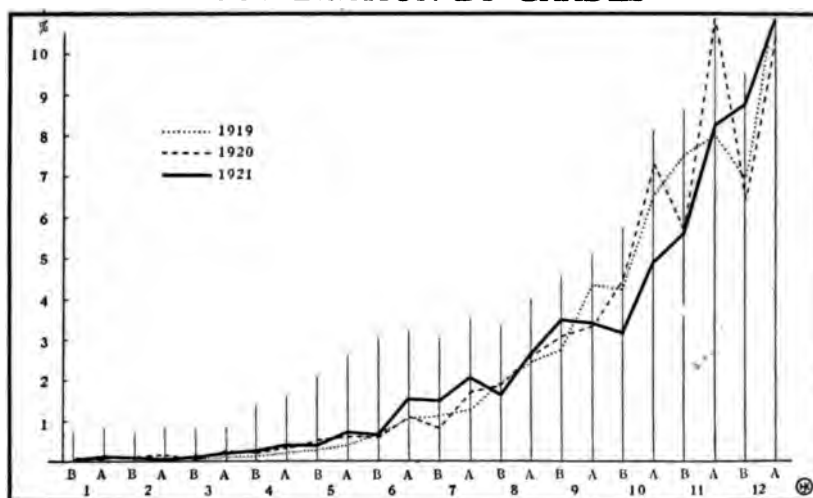
School Year	—School census—		School registration		Nov. membership	
	Number	% Increase over 1910-11	Number	% Increase over 1910-11	Number	% Increase over 1910-11
1910-11.....	114,448	....	61,961	....	47,857	....
1911-12.....	119,599	4.5	63,547	2.5	49,448	3.4
1912-13.....	131,845	15.2	71,003	14.6	54,585	14.0
1913-14.....	133,155	16.4	77,024	24.3	60,570	26.4
1914-15.....	138,805	21.2	84,280	36.0	69,086	44.2
1915-16.....	149,346	30.4	96,067	55.0	77,939	62.8
1916-17.....	164,532	43.7	104,737	69.2	86,974	81.6
1917-18.....	185,254	61.8	117,527	89.8	95,023	98.5
1918-19.....	203,091	77.4	128,456	107.3	105,317	120.0
1919-20.....	222,789	94.5	139,604	125.2	116,475	143.2
1920-21.....	237,592	107.6	143,677	132.0	122,690	156.2
1921-22.....	.....	.....	156,235	152.3	136,930	186.0

SUMMER SCHOOL 1921

The summer school plant consisted of Central high school, Cass Technical high school, thirteen elementary, six open air and three continuation schools besides Teachers College, and Junior College. Summer school was understood to be primarily for failed, conditioned or exceptionally bright pupils. Elementary registration was 30% over 1920 and high school registration was 100% over 1920.

Table 42—Summer Schools, 1921

	—Registration—			Memb. at close	Average mem- bership	Average attendance	Percent of attendance
	Boys	Girls	Total				
Elementary							
Bishop	660	656	1,316	1,202	1,220.5	1,161.3	95.2
Davison	352	329	681	555	568.7	517.0	91.0
Eastern	396	375	771	632	661.4	606.6	91.7
Ellis	391	367	758	636	670.8	572.4	85.3
Garfield	551	583	1,134	1,025	1,037.8	984.2	94.8
Hely	376	370	746	641	661.3	577.1	87.3
Kennedy	213	252	465	387	402.9	363.2	90.1
Northwestern	445	393	838	737	757.2	692.5	91.4
Longfellow	101	111	212	197	198.4	179.9	90.8
Nordstrum	393	356	749	645	663.3	606.6	91.5
Northern	614	549	1,163	1,013	1,055.1	923.4	87.5
Southeastern	431	353	784	614	678.7	621.1	91.6
Webster	143	146	289	215	227.8	198.6	87.2
Totals Elementary ...	5,066	4,840	9,906	8,499	8,803.9	8,003.9	90.9
Spec. Prep.							
Bishop	15	13	28	28	28.0	27.8	99.3
Northwestern	14	9	23	28	23.6	21.5	91.4
Totals Spec. Prep.	29	22	51	56	51.6	49.3	96.1
Open Air							
Clippert	26	29	55	50	50.9	43.4	85.2
Detroit Sanatorium..	10	7	17	12	13.4	12.5	93.3
Kiefer Hospital	19	18	37	30	30.4	29.5	97.0
Marr	27	25	52	46	47.2	41.2	87.3
Russell	27	32	59	50	51.7	43.6	84.3
Stephens	35	24	59	55	55.8	48.9	87.6
Totals Open Air	144	135	279	243	249.4	219.1	87.9
Soldiers' Vocational..	535	4	539	459	439.4	411.3	93.6
Jr. Continuation	651		651	628	625.5	613.0	98.1
Girls' Continuation...		721	721	617	638.1	518.4	81.2
Sr. Continuation	18	41	59	56	57.7	56.0	97.1
Totals Continuation ..	1,204	766	1,970	1,760	1,760.7	1,598.7	90.8
High							
Cass	498	57	555	486	511.6	476.6	93.4
Central	1,068	1,020	2,088	1,865	1,912.4	1,820.6	95.2
Totals High	1,566	1,077	2,643	2,351	2,424.0	2,297.2	94.8
Jr. College	273	42	315	307	301.8	275.2	91.1
Teachers College	64	1,141	1,205	1,167	1,186.0	1,118.5	94.3
Totals	337	1,183	1,520	1,474	1,487.8	1,393.7	93.7
Totals	10,023	16,369	26,392	24,833	24,777.4	23,561.9	91.8

ACCELERATION BY GRADES**Diagram 35**

The heavy line in diagram 35 shows the acceleration in 1921. The broken lines represent two previous years. There is very little difference through 6B. Grades 6A, 7B, 7A, 9B and 12B showed greater acceleration. The other grades showed decreases.

The number and percents of pupils accelerated three years or more are shown in Table 44.

Table 44—Three-or-More Year Acceleration by Grades

	No. Boys	% Boys	No. Girls	% Girls	No. Total	% Total
Kindergarten	0	0.00	0	0.00	0	0.00
B 1	2	0.03	1	0.02	3	0.01
A 1	5	0.13	3	0.08	8	0.11
B 2	7	0.14	5	0.10	12	0.12
A 2	1	0.03	3	0.09	4	0.06
B 3	4	0.11	3	0.08	7	0.10
A 3	2	0.06	10	0.34	12	0.20
B 4	4	0.12	14	0.41	18	0.27
A 4	5		16	0.61	21	0.40
B 5	7		14	0.50	21	0.39
A 5	17		18	0.76	35	0.72
B 6	17		16	0.61	33	0.64
A 6	30			1.72	67	1.56
B 7	12			1.68	73	1.50
A 7				2.53	85	2.08
B 8				1.41	74	1.65
A 8		2.31		1	91	2.05
B 9		1.89			174	3.88
A 9					99	2.20
B10					85	1.90
A10					80	1.78
B11					87	1.92
A11					80	1.78
B12					80	1.78
A12					80	1.78
Total	111		111		222	

Table 45—Analysis of Lefts, 1921-22

DIVISION	Other rooms	Other buildings	Detroit pa schools	Other cities in Michigan	Other states and countries	Reform school	Institute for defectives	Employment permits	Marriage	Overall legal age limit	Deaths	Others
KDG.	1,289	1,713	133	426	307	1	2				30	996
1st.	6,690	3,905	409	1,200	620	9	3			4	45	750
2nd.	3,998	3,275	319	929	603	8	10	1		6	24	247
3rd.	1,898	2,821	240	701	476	8	1	8	1	6	13	163
4th.	1,429	2,273	214	580	423	9	2	8		8	11	147
5th.	1,191	1,874	195	431	331	33	5	21		23	7	116
6th.	897	1,770	127	352	305	12	3	36	4	24	17	109
Total Elem. .	16,103	15,918	1,504	4,193	2,758	79	24	75	5	71	117	1,532
7th.	595	1,854	137	302	231	10	3	109	7	53	9	138
8th.	381	1,217	120	188	200	9	1	145	4	86	8	130
9th.	242	675	149	211	174	6	2	231	14	395	11	310
Total Inter. .	1,218	3,746	406	701	605	25	6	485	25	534	28	578
10th.	19	188	39	80	74	4		77	9	309	3	130
11th.	20	58	5	38	32			49	4	259	3	64
12th.	7	55	4	13	16			11	1	136		160
Total High. .	46	301	48	131	122	4		137	14	704	6	354
Special A.	54	439	45	48	23	7	7	2	1	2	2	37
Special B.	303	348	23	56	35	13	4	18	4	97	1	74
Special Adv. .		74	1		7	1						
Special Prep. .	54	123	6	22	20	1		28	1	21	4	11
Ungraded.	26	133	7	18	16	14		27		27		18
Open Air.	14	48	5	12	15		2				2	31
Open Window	60	14		3	3							5
Blind.	3	31		2	5			1				2
Deaf.	1	3		2	1		1					5
Crippled.	57	6		3	1						3	5
Amerization. .	147	63		9	19	2		6	3	46		5
Total Special.	719	1,282	87	175	145	38	14	82	9	193	12	193
Sr. Cont. (Cs)											1	399
Jr. Cont. (Cs)		142	3	78	8			2		325	2	277
Sr. Cont. (W)										27		15
Jr. Cont. (W)												1
Girls Cont. . .		181	6	61	21	1		6	37	941	1	12
Cont. B.	4	25		4	3		2	2	4	44	1	1
Trade Dress. .		65	5	11	13			18	6	26		8
Total Cont. . .	4	413	14	154	45	1	2	28	47	1,363	5	1,058
Voc. Tr. G. B.									4			
Voc. Soldiers.												425
Jr. College. . .												
Teachers Col.												
Post Grad. . .		2	1		1			2		35		
Grand Total. .	19,379	23,375	2,194	5,780	3,983	148	48	808	104	2,900	10	
Percent of Registration	12.4	14.9	1.4	3.7	2.5	.1	.03					

Table 48—Length of School Year

Year	Number days	Year	Number days
1899-1900.....	194	1910-1911.....	191
1900-1901.....	187	1911-1912.....	194
1901-1902.....	188	1912-1913.....	188
1902-1903.....	188	1913-1914.....	181
1903-1904.....	192	1914-1915.....	184
1904-1905.....	192	1915-1916.....	191
1905-1906.....	192	1916-1917.....	190
1906-1907.....	193	1917-1918.....	182
1907-1908.....	193	1918-1919.....	179
1908-1909.....	194	1919-1920.....	186
1909-1910.....	192	1920-1921.....	193
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**Library, Sampson School**

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EIGHTIETH
ANNUAL REPORT

of the

Detroit Public Schools



Published by the Authority of the
Board of Education

Our duty as educators is not simply to establish free schools, make provision for their support, and employ teachers to instruct children, but it enjoins upon us to create and maintain a healthy public sentiment in relation to popular education and in favor of the schools.

—Duane Doty, 1866.

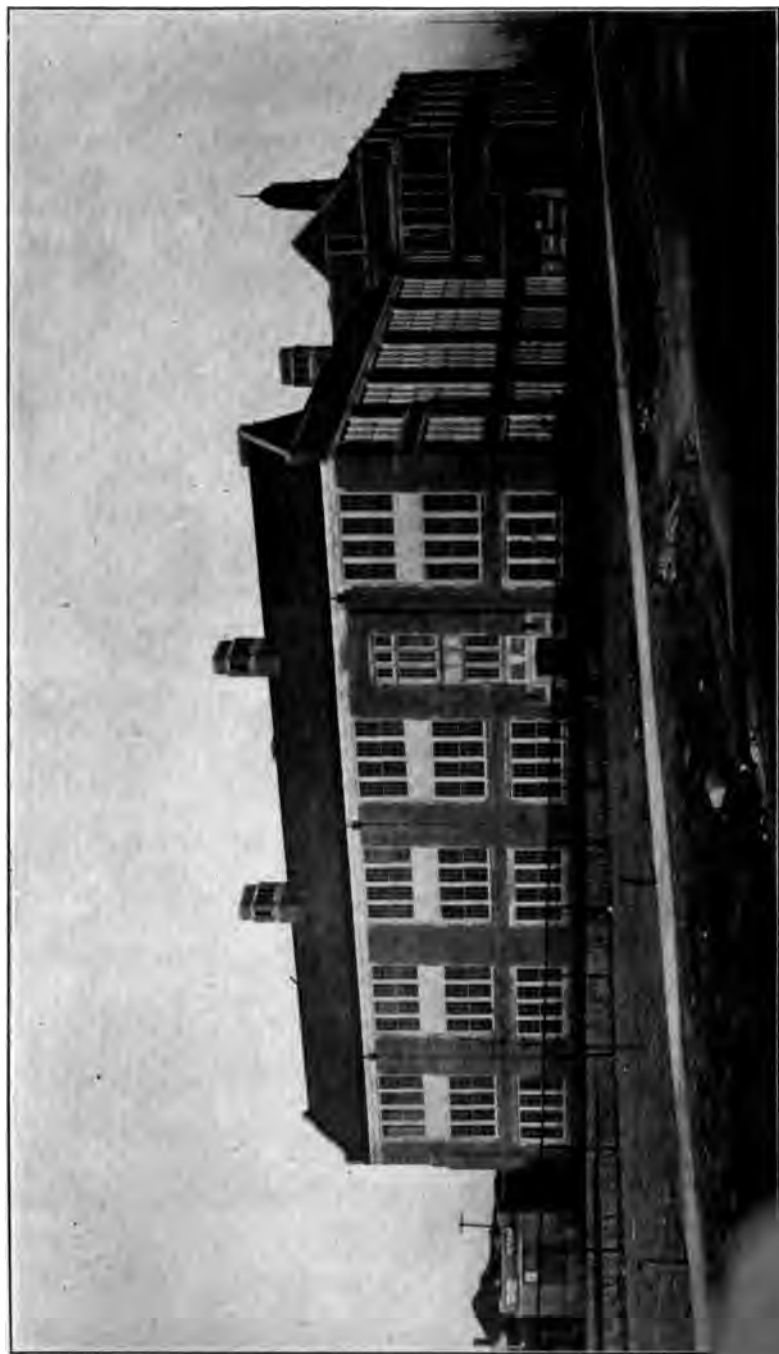
EIGHTIETH ANNUAL REPORT

of the

Detroit Public Schools



**Published by the Authority of the
Board of Education
City of Detroit
1923**



Barbour Intermediate School—South Elevation

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LETTER OF TRANSMITTAL

July 15, 1923.

To the Honorable Board of Education,
City of Detroit.

I take pleasure in submitting the Eightieth Annual Report of the Detroit Public Schools for the school year ending June 30, 1923. This comprises the following divisions: Part I, Growth of the Public Schools; Part II, Educational Policy; Part III, Progress during 1922-23; Part IV, Public School Organization; Part V, School Buildings; Part VI, Finance, and Part VII, Statistical Studies.

Very respectfully,

A handwritten signature in cursive script, reading "Frank C. Kelly". The signature is written in dark ink and is positioned above the printed title.

Superintendent of Schools



The total number of children served by community and private effort in June, 1922, was 186,726, or 77.3 per cent of the total. Public schools had 137,201, or 56.8 per cent of the total membership. According to the census report there were 11,730 children, 7.1 per cent, of compulsory school age not in attendance. A certain number of these can be accounted for by employment (1532) and non-attendance (81 permits).

Is this a good or a poor showing? The question must be answered in relative terms, for our present knowledge of actual conditions in other places is fragmentary, owing to the lack of uniform records. The federal census reports the total number of children of school age who are not in attendance. This report includes such a wide range of laws and methods of enforcement that its use for comparative purposes must be carefully conditioned and qualified. In general Detroit, as would be expected for a large city, shows a larger proportion of children in school than the country as a whole.

Statistically, there were 7.1 per cent of children of compulsory school age who were not in school. In terms of per cents this is a relatively good condition, but when considered from the standpoint of the number of individual children a different side of the problem is presented.

Historically the existing conditions are in line with the general trend of improvement. Data are available for Detroit to determine the proportion of average public school membership to total school population since 1841. From 1891, when 24.3 per cent of the school population were in membership, until 1922, when 56.8 per cent were in school, there has been a steady increase. Irregularities in the curve in the fifties and sixties are due

1. The table from which data were taken may be found in Part VII, page 112.

2. Per Cent of Children of School Age not in School
(Based on Detroit 1922 census and U. S. census, 1920).

Age Group	Detroit	U. S. a	Age Group	Detroit
7	9.9	16.7	12	4.3
8	8.4	11.8	13	4.4
9	4.6	9.6	14	5.1
10	4.4	6.9	15	8.3
11	4.5	6.1	16	25.2

probably, to a number of variables, including inaccuracy in making the count, faulty school records permitting loss or duplication of children, changes in the school law enforcement, and economic conditions. The trend of public school attendance in relation to the total school population is shown in per cents in the following diagram :

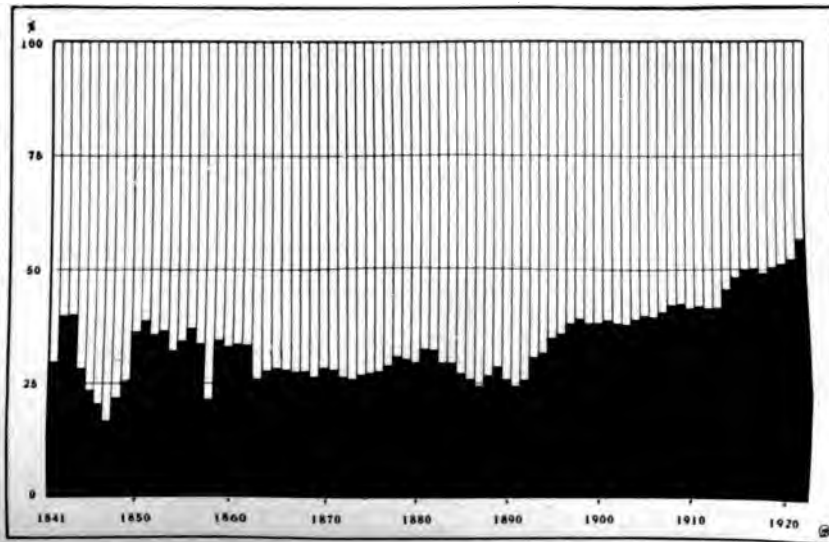


Diagram 2—Per Cent of Children of School Age in Attendance 1841-1922

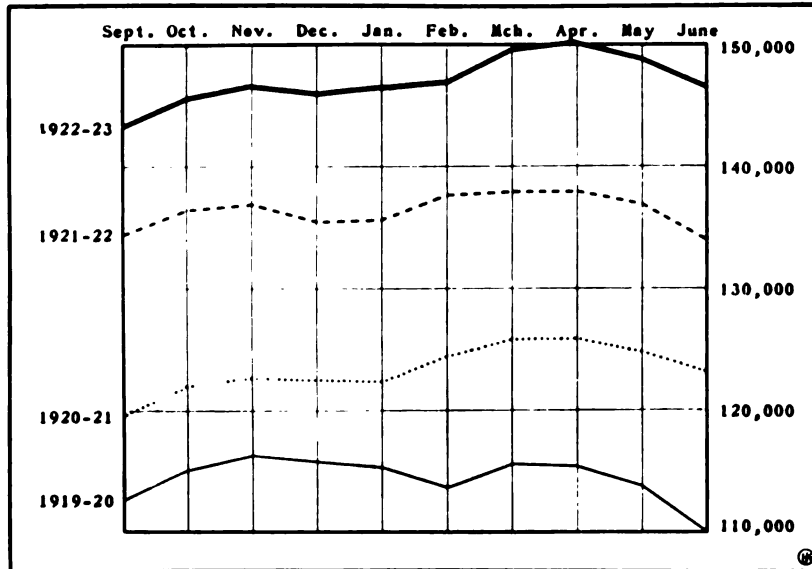
The apparent conclusion is that conditions in Detroit are relatively good as compared with the past and with the country as a whole, but a distinct and important problem is indicated that calls for scientific accounting practice and a serious study of attendance and social outcomes.

DETROIT PUBLIC SCHOOLS WITH

Public schools in Detroit, which were founded in 1824, reached their peak at the close of the nineteenth century. At that time there were more than one million children in the city, and the public schools were the largest of any in the country. The attendance in the public schools in 1922 was 60 per cent of the total school population.

industrial conditions which attracted large numbers of new families to the city. Annexation added 1021 children. The membership by months for the last four years is shown in diagram 3.

Diagram 3—School Membership by Months and Years



The above data is presented in tabulated form in Table 1.

Table 1—School Membership

Month	Membership				Increase	
	1919-20	1920-21	1921-22	1922-23	1922-23 over 1921-22 No.	%
September	112,806	119,688	134,390	143,402	9,012	6.7
October	115,117	122,059	136,416	145,577	9,161	6.7
November	116,284	122,690	136,930	146,587	9,657	7.1
December	115,790	122,529	135,497	146,060	10,563	7.8
January	115,367	122,370	135,622	146,526	10,904	8.0
February	113,699	124,514	137,587	147,888	10,301	7.5
March	115,591	125,885	137,902	149,569	11,667	8.5
April	115,444	125,911	137,949	150,186	12,237	8.9
May	113,844	124,812	136,908	148,755	11,847	8.6
June	110,019	123,155	134,083	146,533	12,450	9.3
Av. first semester . .	114,015	120,761	134,630	144,885	10,255	7.6
Av. second semester	112,846	125,198	136,633	148,012	11,379	8.3
Av. school year . . .	113,486	123,018	135,631	146,552	10,921	8.1
Percent of attend. . .	87.9	90.1	89.7	88.4	-1.3	-1.4

PART TIME SESSIONS

Part time sessions included 9,960 children in April, an increase of 4,311 over the preceding year. The worst conditions were in the Davison, McMillan-Morley, and Duffield-Barstow districts. Relief to the last named district will be available in September, 1923; the Morley-McMillan additions will probably be ready in January, 1924, and a new school in the vicinity of the Davison is expected to be completed by September, 1924. Diagram 4 shows the number of children on part time during the past four years.

Diagram 4—Children on Half-Day Sessions

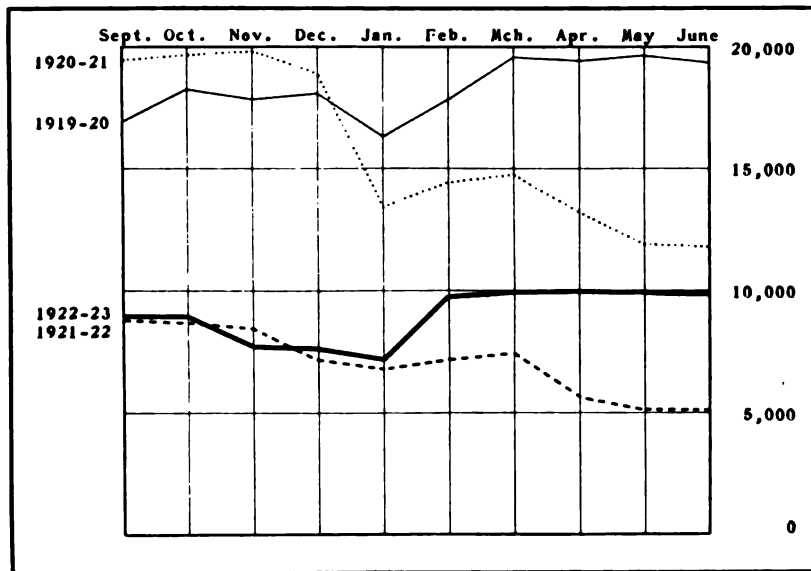


Table 2—Number of Children on Half-Day Sessions

Month	1919-20	1920-21	1921-22	1922-23
September	16,900	19,414	8,781	8,934
October	18,193	19,646	8,747	8,903
November	17,795	19,819	8,444	7,683
December	18,056	18,903	7,144	7,521
January	16,270	13,465	6,764	7,301
February	17,809	14,449	7,168	9,716
March	19,554	14,691	7,450	9,954
April	19,408	13,175	5,649	9,960
May	19,581	11,891	5,127	9,910
June	19,338	11,811	5,109	9,865

HOUSING CONDITIONS

A comparison of the November, 1922, housing conditions in the elementary schools with those in the preceding December shows an improvement, particularly in respect to rented quarters, basement rooms, old buildings, and crowded classes. The percentage of betterment is 5.1.

Table 3—Housing Conditions of Elementary Pupils

	December 1921	November 1922	Decrease
Rented quarters	959	468	491
Temporary buildings	3,322	3,010	312
Basement rooms	3,568	3,331	237
Buildings over 50 years old	4,005	3,775	230
Total	11,954	10,584	1,370
Half day sessions	7,053	7,683	—630
Crowded rooms (45 or more)	28,667	28,211	456
Grand total inadequately housed	47,574	46,478	1,096
Total elementary membership	107,173	116,571	9,398
Per cent inadequately housed	45	39.9	5.1

SIZE OF CLASSES

The median size of the elementary school class was 41.3; of the intermediate, 31, and of the high school, 28. The elementary classes increased somewhat in size, while the intermediate and high schools remained constant. Table 4 contains these data:

Table 4—Size of Classes

	25 Percentile		Median		75 Percentile	
	1921-22	1922-23	1921-22	1922-23	1921-22	1922-23
Elementary	32.9	36.6	37.3	41.3	43.5	45.7
Intermediate	26.0	23.0	31.0	31.0	37.0	37.0
High	23.0	23.0	29.0	28.0	33.0	34.0

SCHOOL BUILDINGS

The following diagram and table show the number of school buildings by type and by years:

Diagram 5—School Buildings By Type

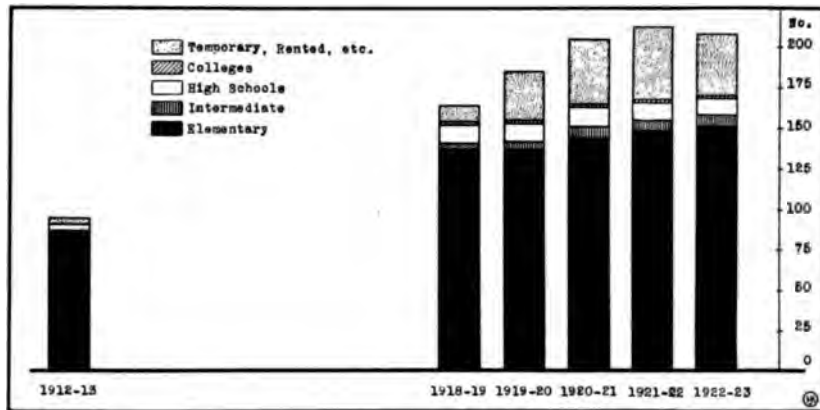


Table 5—Number of School Buildings by Years

Year	Elementary	Intermediate	High	Colleges	Rented buildings	Portable buildings	Settlements and neighborhood houses	Temporary buildings	Open air	Net No. of buildings in use	Total No. of buildings
1896.....	59		1		4					64	64
1912.....	87		4		4					95	95
1919.....	137	4	11	2		7	3			162	164
1920.....	137	5	11	2	6	15	3	5	1	183	185
1921.....	144	7	12	2	12	15	4	7	2	197	205
1922.....	149	6	11	2	18	14	4	7	2	210	213
1923.....	151a	7b	10	2	11	16	2	6	3c	204	208

(a)—Includes Clay and Wilkins, discontinued; two new buildings, Duffield and Ferry, being constructed to replace the original buildings; and the new building for the School for Deaf. The Johnston building was removed to allow addition to the Miller Intermediate, and the Dexter building was sold. The Edgewood, Birdhurst, and Livernois were annexed from Greenfield Township and the Hunter from the Oakwood district.

(b)—Includes Jefferson school in course of construction.

(c)—Also maintain open air departments in five other buildings and in two sanitariums.

PRINCIPALS' SALARIES

Median salaries paid principals in six cities are presented graphically in diagram 7 and the percentile salaries in table 7.

Diagram 7—Median Salaries of Principals

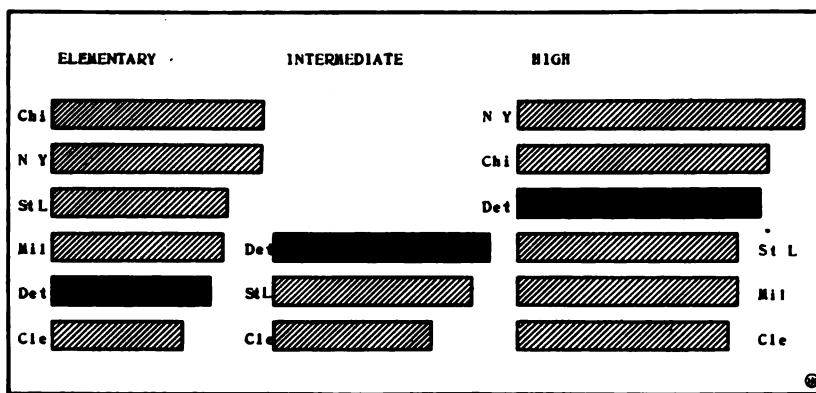


Table 7—Salaries of Principals

City	25 Percentile	Median	75 Percentile
Elementary			
New York	4756	4771	4785
Chicago	4400	4800	4800
St. Louis	3150	4000	4053
Milwaukee	3400	3900	4400
DETROIT	3200	3600	4000
Cleveland	2705	2975	3090
Intermediate			
DETROIT	4700	4900	5000
St. Louis	4500	4500	4500
Cleveland	3420	3600	3625
High			
New York	6500	6500	6500
Chicago	5500	5700	5700
DETROIT	5500	5500	5500
St. Louis	5000	5000	5000
Milwaukee	5000	5000	5000
Cleveland	5000	5000	4800

Table 9—Number of Teachers by Years

School Year	Regular Teachers Men	Regular Teachers Women	Substitute ¹ Teachers	Total	Increase	Percent of Increase
1910-1911	125	1,464	...	1,589	...	...
1911-1912	136	1,549	...	1,685	96	6.1
1912-1913	155	1,631	...	1,786	101	6.0
1913-1914	193	1,767	...	1,960	174	9.8
1914-1915	239	1,896	...	2,135	175	8.9
1915-1916	293	2,103	...	2,396	261	12.2
1916-1917	338	2,312	...	2,650	254	9.6
1917-1918	347	2,671	...	3,018	368	12.2
1918-1919	433	3,130	...	3,563	545	15.3
1919-1920	498	3,252	...	3,750	187	7.7
1920-1921	540	3,543	...	4,083	333	8.2
1921-1922	649	3,869	...	4,518	435	9.6
1922-1923	651	4,047	198	4,896	378	8.4

¹ Includes only regularly assigned substitutes.

SCHOOL ORGANIZATIONS

The organization of the schools is gradually proceeding to a 6-3-3 basis set up as a general policy. Since 1919-20 the number of six grade schools has increased from 22 to 35. Intermediate and senior high school organizations are developing as rapidly as building conditions permit.

Table 10—Types of School Organization

Types	Number 1919-20	Number 1920-21	Number 1921-22	Number 1922-23	Types	Number 1919-20	Number 1920-21	Number 1921-22	Number 1922-23
K	1	3	1	1	1-6	2	3	2	2
K-1	1	2	1	1	1-7	1	0	0	0
K-2	2	2	2	2	1-8	6	3	3	4
K-3	1	9	8	3	2, 5, 7	0	1	0	0
K-4	6	5	1	7	2-8	0	1	0	0
K-5	4	4	7	10	3-8	0	1	0	0
K-6	22	24	33	35	4-7	0	0	1	0
K-7	21	16	15	8	6-7	0	0	1	0
K-8	63	66	66	73	6-8	0	0	0	1
K-9	0	0	0	1	7-9	4	4	5	5
1, 2, 4, 5, 8	0	1	0	0	7-12	5	3	2	0
1-3	1	1	0	1	8-12	1	2	2	1
1-4	4	0	2	1	9-12	3	4	6	9
1-6, 6	0	0	0	1	9-14	1	1	1	1
1-4, 6, 7	0	0	1	0	13-15	0	0	1	1
1-5	1	2	0	1					



Cass Technical High School—Entrance Detail



- g. To provide for growth in school membership in each budget.

These policies have served as guides in the formulation of past budgets. Up to the present the Board of Education has not attempted to go beyond the minimum requirements, which allow only for growth, half-day sessions, and some of the most objectionable housing conditions. During 1923-24 many of the temporary buildings will still be in operation, not all of the 50-year-old buildings will have been discarded, nor all the basement rooms or overcrowded classes done away with.

3. Reorganization of any unit or department is preceded by intensive survey and developed in relation to the general policy.

4. Legislation enacted during the 1923 session of the legislature makes possible the development of a municipal university.

5. A council of administrative officers has been organized, representing the elementary, intermediate, and high schools, and the college units, in an attempt to correlate definitely all instruction from the kindergarten through the professional schools.



Courville Elementary School

Part III

Progress During 1922-1923

THE 1922-23 summarized progress report of the Detroit public schools follows.

ADMINISTRATION

1. Eleven elementary buildings and additions, capacity 5,100, were completed and put into operation.

2. Additions were made to Condon and Neinas intermediate schools.

3. The new Cass technical high school unit was completed in time for the opening of the school year.

4. The Beard and Majeske open air schools were completed for occupancy during May.

5. The tendency in elementary school construction was toward the open court building typified by the Brady plan.

6. Elevations and designs for the Roosevelt group were adopted by the Board of Education upon the basis of an architectural competition.

7. Thirty-four school playgrounds were resurfaced according to new specifications, using lime stone screenings and dust, totaling approximately 120,000 square yards. Twelve school playgrounds have been graveled as a temporary measure and landscape work was completed at 18 schools. New type wire fences were erected at 14 schools and new sidewalks or drives constructed at 18. The Codd and Goldberg athletic fields have been completed, and a new athletic field built at Southwestern high school.

8. Research studies were made for use in the Cass, Hutchins, and Baldwin buildings, and for architectural and engineering service. The studies continued relating to the history of the Detroit Public Schools was completed.

9. Demand for the use of the results of the research was continuing. The Platoon and the results of the research were being used in the

10. Special bulletins on vocational and safety education were issued.

11. Important studies made by the department of instructional research have been as follows: construction of a scheme of achievement and growth ratings to aid in the interpretation of test results; the significance of rate and quality in the measurement of ability in written composition; the change during four years in classes' achievement in the common branches as measured by standard tests; the effect of kindergarten attendance and of age at entrance upon the rate of subsequent progress; the development of a method for demonstrating the equivalence of forms of a test; educational product in relation to the X, Y, and Z grouping; study of children's learning curves based upon their test records for four years.

12. The educational testing program was put on a strictly voluntary basis, testing material being supplied only to teachers who specifically asked for it. The number of tests used this year has been more than 95% of the corresponding number last year. Such wholesale continuance of the use of tests indicates that teachers have found them of value.

13. The department of instructional research has (a) provided testing material for more than a million standard tests; (b) organized and helped to interpret the resulting data, and (c) co-operated with supervisors and principals in a large number of special studies.

14. The fifth annual educational conference was held in May. Thirty-two research studies made by teachers, supervisors, and principals were presented. Synopses of these were published in the June number of the Detroit Educational Bulletin.

15. An effort has been made, through the construction of courses of study, to arrive at a more direct method of instruction to increase mastery over instructional materials, and to economize upon the time required for learning. The following courses have been completed: Nature Study, A Children's Code of Morals, Opportunities and Requirements in Local Occupations, The Museum Catalog, Elementary Bookbinding and Repair.

delinquent girls at Williams house; (3) teachers for the patients at the Florence Crittenden home; (4) teachers for children employed by a theatrical company; (5) participation in American Education Week; (6) participation in Mother and Daughter Week; (7) membership campaigns for M. S. T. A. and N. E. A.; (8) co-operating with the girl scouts and campfire girls, and (9) co-operating with the National Prison Association, the Big Brother and Big Sister Federation, and the Y. W. C. A., Episcopalian Women's Round Table, and the National Conference of Social Workers.

20. A very gratifying feature of the year's progress has been the continued development of Parent-Teacher Associations. They number 80 and the majority are affiliated with the state and national organizations.

21. The central office issues permits to school organizations and to outside organizations for the use of school buildings and playgrounds after school hours. During the eight months of the current year there were 1,499 permits issued, as against 893 for the corresponding period in 1921-22, and 385 for the entire year 1920-21. In most cases the buildings have been used to their capacity. In several schools the gymnasiums and pools have been used continuously from 4:00 to 11:00 p. m.

22. Legislation enacted during 1923 provides for the extension of the college course to four years; supplies state aid for the education of blind and crippled children; amends the teachers' retirement fund act, and makes possible the annexation of entire instead of fractional school districts in event of territorial enlargement by the city.

23. In the preparation of the 1923-24 budget, a new step in the procedure was put into effect. This was the formulation in October of a conspectus which was submitted to the Finance Committee of the Board of Education before the detailed budget was compiled. Through this plan a preliminary general view of estimated totals for 1923-24 was presented and advance comparisons by activities with 1922-23 were possible.

24. Detailed review of all personal service for educational administration and instruction from the point of view of expenditures and available funds has culminated in the establishment of

a visible filing system which carries immediately available data on contract employees, payroll amounts, and budget charges. This control plan makes possible much more effective co-operative action by those in direct administrative charge of the various activities toward keeping these personal service expenditures at a reasonable minimum.

25. Approved lists for general educational forms, supplies, and books together with maximum quantity allowances for the various uses of each article, have been completed and put into effect.



Playground—Pattengill School

There are 128 such lists. The total number of articles on these lists is approximately 4,200. The total number of distributions is approximately 10,500. These lists solve the problem of determining quantities to buy for stock and furnish effective standards for reviewing all requisitions for books and materials. The estimated total of requisitions so reviewed during the fiscal year 1922-23 was 25,000.

26. Standard equipment for high school chemistry, physics, and biology is being completed and coordinated. Purchase orders for the fiscal year 1923-24 were in the amount of \$10,000.00. The total of different items on the list is 1,200.

27. Sufficient quantities of standard supplies, forms, and books for a semester's use were delivered at one time instead of in monthly lots as was the case in other years. Through this plan of semi-annual delivery of a given class of materials, with a staggered program of deliveries throughout the calendar year, a step in advance has been made in this service.

28. The procedure for determining equipment needs and for reviewing requests for purchases has been improved and extended. Specifications have been set up for numerous articles of general equipment for special purposes. There are now 61 standard equipment lists, totaling 4,271 articles.

29. The activities conducted under the internal accounting system have grown until the amount of annual cash receipts totals approximately \$600,000. An advisory internal accounting committee composed of administrative officers and high school principals has been added to the internal accounting organization.

SUPERVISION

Health Education

1. The aim is to give the child increased physical ability, to insure normal growth, to decrease illness, to avoid accidents, to overcome defects, and to make possible an abundance of energy and vitality. The activities used are grouped under the following headings: (1) Physical instruction; (2) play, games, stunts, group dancing, and swimming; (3) individual gymnastics; (4) athletics; (5) health instruction; (6) boy scouting, and (7) safety education.

2. Physical inspection of pupils is conducted under supervision of the city Department of Health.

3. Play, games, stunts, and group dancing are given from the first grade through college from 30 to 60 minutes per day according to the grade of the child and the type of the school. The physical ability of individual students is studied and a varied program of play and self-measurement activity is carried on, aiming to interest pupils in all round physical efficiency and to show improvement in the individual as he progresses in school. Swimming begins in the seventh grade and continues through college. Instruction in life saving and water safety goes hand in hand with swimming instruction. In so far as equipment and space per-

mit, the program aims at complete participation in play, games and swimming by both girls and boys.

4. The aim of the individual gymnastic section is to make it possible for students unable to share in general health activities to receive special attention in the smaller gymnasium. The following conditions may be benefited by this department: Poor posture, slight curvature of the spine, cardiac weaknesses, infantile and spastic paralysis, and weak or fallen arches of the feet. Pupils in the 16 open air rooms and the nine open window rooms have had their exercise program supervised by this section.

5. The field of athletics, embracing the activities of boys and girls, extends from the sixth grade through college. In this field the great aim is to direct the natural surplus energy into constructive channels which will help fit the child into society.

6. Health instruction is in four divisions: two elementary, one intermediate, and one high. The course for grades 4, 5, and 6, is in the schools. Tentative courses for the kindergarten, 1st, 2d, and 3d grades, for intermediate schools, and for high schools, are being prepared. The aim is to transfer the responsibility for personal and group health to the individual.

7. Through the field scout executive, who is a member of the Health Education Department, the boy scout school troops are organized and connected with the city scout headquarters.



Gymnasium—Southwestern High School

8. The aim of safety education is to save lives and property by educating school children in the principles and practice of accident prevention and fire prevention.

Health Department Work in the Schools

In an effort to safeguard and promote the health of its children, the Detroit health department offers to the schools, public and non-public, nursing service, specialists for the diagnosis of communicable disease, medical and dental service, nutrition classes, little mothers' league classes, health talks, supervision of children in open air schools and open window rooms, and special medical attention for the handicapped, including the deaf or partially deaf, blind or partially blind, and the crippled. In addition may be mentioned the sanitation of school buildings and the supervision of swimming pools.

Language Education

Kindergarten

1. The kindergarten department has developed a new curriculum.

Reading

2. In the first grade emphasis has been placed on an experimental method in reading developed by Miss Nila B. Smith. This method has been used in 63 B-first rooms this year and will be extended to 80 next year.

3. The new course in phonics attempts to attack the problem of individual differences through the use of diagnostic tests. The course provides an analysis of the various abilities in phonics to be developed, practice material for the pupils, descriptions of procedure, and standards of attainments for the teacher.

4. The department has worked in co-operation with the Research department in the construction of various types of reading tests for use in the city. The Word Recognition Test for lower primary grades, new forms of the Ayres-Burgess Test, and an Oral Vocabulary test for kindergarten and first grade pupils have been completed.

5. Worthwhile lessons and exercises in reading, constructed by teachers, have been mimeographed or printed for city wide distribution. Contributions of this kind have been made by teachers from the Marr, Lillibridge, Parke, Dwyer and Lynch schools and from the Teachers College summer school classes in silent reading.

6. The 60-page pamphlet entitled "Silent Reading Exercises," composed largely of exercises contributed by teachers and arranged and edited by the department, has been very well received.

Spelling

7. Construction of a new word list for grades 1-6. Better results in spelling can be secured by teaching those words most likely to be used in one's written vocabulary. The construction of a new list involved the checking of the present list of words against six other well known lists.

8. In conjunction with the handwriting department, a new method has been devised for teaching handwriting and spelling together in grades 1 and 2. This plan provides for individual pro-



Library—Southwestern High School

gression, development of a technique of study, and training in habits of accuracy, neatness, self-help, co-operation, and leadership.

English

9. An experiment has been conducted during the year to discover more effective means for teaching English composition.

10. An informal experiment was conducted in the B-third and B-fourth classes in play writing. The purpose was to discover whether practice in the writing of personal experiences or stories in dramatic or dialogue form increased general composition ability. The findings indicate that such methods are helpful.

Literature

11. Studies have been carried on to discover more effective methods for developing literary appreciation.

12. Two extension classes in Teachers College were conducted during the year, one in Appreciation of Literature and one in Composition Method.

13. The English department has taken an active part in seven composition contests initiated by patriotic and community organizations.

Handwriting

14. The work of the handwriting department has been extended to include grades 1-A to 12-A. By the time the pupils have left the elementary schools they have generally acquired the ability to write quality 65 or better (Ayres Scale) and a rate of about 80 or more letters per minute.

15. Hospital classes have been organized in intermediate schools and high schools to improve the quality of handwriting. One of the outstanding aims in the intermediate and high schools is to stimulate an attitude toward good, legible handwriting.

Foreign Languages

16. A basic general language survey course has been tried out in the B-eighth grade. The purpose of this course is to give the pupils an introduction to the study of the origin, nature, and function of language, leading up to the study of the development of the English language, its foreign elements and its relationship to other languages, especially to Latin, French and German.

English for Foreigners

17. The number of adult persons registered in classes providing English for foreigners during the school year of 1922-23 approximated ten thousand four hundred eighty-five (10,485), of whom seven thousand four hundred thirty-two (7,432) were men and three thousand fifty-three (3,053) were women.

18. The 12 special foreign children's classes enrolled for the year approximated 487 pupils, with no record of children enrolled in over-time classes.

19. The outstanding development in instruction in the adult classes was the organizing of a series of student achievement units and a special student progress report.

20. An experiment to ascertain the value of visual aid as a stimulus in developing oral language ability was completed.



Auditorium—Balch Elementary School

School Libraries

21. Fourteen new libraries have been opened in platoon schools since September and one in the High School of Commerce, making a total of 54 school libraries. The children's interest in books and reading is growing constantly and the demand for books is greatly increased.

22. Reports from children who have had training in elementary school libraries, entering the intermediate and high schools for the first time, show proficiency in the use of the library, and an excellent attitude and interest in exploring the larger collections of books which they find available and increasing requests for lists of books for home library purchase.

Exact Science Education

Mathematics

1. A detailed teaching outline emphasizing the civic and social application of arithmetic was prepared and put into use in the seventh and eighth grades of the intermediate schools.

2. The use of the slide rule was added to the statistics for ninth grade intermediate pupils in the commercial grade.

set of instructions and exercises were developed and tested through classroom experimentation before general use was made of them.

3. An eighth grade Business Practice course of study has been prepared. This course provides training for the junior office worker along the lines of filing, use of the city directory, business courtesy and etiquette, use of standard price charts and scales, practice with business forms, and other foundational training needed by the junior office worker.

4. Seven thousand two hundred supplementary arithmetic books of three different titles were distributed in the elementary schools. A teaching outline with cross references to each supplementary series was prepared for the purpose of emphasizing the use of everyday applications of arithmetic in classroom teaching.

5. For experimental purposes arithmetic has been added to the curriculum of 30 A-1 classes. Preliminary reports show that pupils in the first grade are capable of carrying on the study of arithmetic. Flash cards and grocery stores were also used experimentally in the second grade.


6. Ninety classes were provided with the third grade arithmetic practice test cabinet and the teachers of these classes trained in the use of this new cabinet.

7. Surveys of the methods and practices of banking, taxation, stocks and bonds, and payment plans from the point of view of the consumer, were made by contributing teachers. This survey was made through visits to business men, factories, stores and markets. Similar surveys were completed on the use of fractions and percentage in everyday life.

General Science

8. A detailed course of study for the B-7, A-7, and B-8 intermediate school general science classes has been completed. The general science course for the first three semesters of the intermediate school deals with elementary physical environmental science.

9. A committee of intermediate school general science instructors prepared a complete list of references to biographies of famous scientists. Through biographical reading and reports, history and literature correlations are made with general science.



Social Science

1. During the present year, the major part of the time of the social science staff has been spent on the building of a course of study, field work of a supervisory nature, and in analysing and evaluating the text books, supplementary books, maps and other equipment now in use.

2. In September 1,500 mimeographed copies of the social science course of study for the first six grades were distributed in the schools of the city. During the year, opportunity has been given each teacher to check and suggest changes which would make the course more workable. Personal conferences have been held with over 600 teachers and over 100 principals, at the school buildings, and their suggestions incorporated when it was clear that the changes suggested would be for the improvement of instruction. The course of study has been revised and rewritten during the present year.

3. The field work of the department has consisted of visits at school buildings for the purpose of constructive supervision. The supervision has consisted of giving teachers aid in the interpretation of the course of study, suggesting variations in method, added activities, fuller use of equipment and in the discussion and



Biology Laboratory—Southwestern High

evaluation of informal lessons given before principals and teachers.

4. An inventory has been made of the available equipment in the social sciences found in the schools of the city and additional material which is needed to carry out effectively the plans of the department. During the present year, all obsolete maps of the United States and Europe have been replaced and a beginning made towards replacing those of the continents. A more adequate distribution of maps has been provided for the larger schools.

Vocational Education

Applied Art

1. The applied art course was introduced into 52 platoon schools, and supervision of applied art was extended to include the girls' technical courses in design in the intermediate schools, and all of the art work in the Cass technical high school.

2. Exhibits of the work in applied art were prepared for and displayed at the Michigan State Fair, the Michigan State Teachers' Association meeting, the meeting of the National Society for Vocational Education, the Superintendents' meeting in Cleveland, and the Educational Conference in Ypsilanti.

3. A comprehensive course of study for grades 1 to 6 in platoon schools has been completed.

Manual Arts and Vocational Education

4. The course of study in boys' construction work for the fourth grade in non-platoon schools was completed and distributed to teachers. A student's manual, containing the general and specific standards and working drawings and directions for all projects in the course, was placed in the hands of each student.

5. Bookbinding and book repair was carried on by the fifth grade pupils in the manual training classes of 60 elementary non-platoon schools, which involved 1,200 children and the repair of 18,687 books for the first semester. About 45,000 additional books were repaired during the second semester.

6. A survey of the books in the Detroit public elementary schools was made, through the Department of Vocational Education, under the direction of the Department of Educational Expenditures.

7. Printed courses of study in boys' construction work, bookbinding and book repair, bench work in wood, household mechanics, machine shop practice, electrical work, auto mechanics, pattern



Elementary Manual Training Room

making, mechanical drawing, domestic art, and domestic science have been prepared and supplied to all teachers.

8. The courses of study in household mechanics, the general shop, have been modified and adapted to the needs of the intermediate school.

9. A policy has been prepared and submitted on production work in school shops, and the courses of study have been adjusted so as to contain problems of this nature.

10. Courses of study in mechanical drawing have been carefully prepared in detail to meet the requirements of the intermediate schools, and used during the year. These courses include those for the seventh grade, eighth grade general and commercial curricula, eighth grade technical, ninth grade general and ninth grade technical and industrial curricula.

11. The boys in the manual arts classes in the elementary schools, during October and November, made nearly 2,500 toys for distribution through the agency of the Junior Red Cross to unfortunate children in the hospitals of Detroit and Wayne County. The well-constructed toys consisted of such articles as kiddie cars, hobby horses, boats, motor busses, wagons, wheel barrows, doll furniture, all painted and trimmed to delight the hearts of little ones. A splendid exhibit of these toys was made at a room on Woodward Avenue.

12. A well-organized exhibit, to show the nature and sequence of the work of the Department of Vocational Education, was prepared for the meetings of the Michigan State Teachers' Association and for the National Society for Vocational Education. This exhibit is kept in permanent form for use at schools, teachers' meetings, and other group meetings.

13. Lists of standard equipment and supplies for shops and mechanical drawing rooms in elementary and intermediate schools have been revised. Studies have also been made of shop layouts in a number of intermediate and elementary schools.

14. An extended plan, for securing the co-operation of the principals in improving the instruction of special teachers, has been prepared and submitted to the district principals.

15. A report was prepared and submitted on the Smith-Hughes classes, including a general policy as to admission to these classes.

16. Seven all-day trade classes, in machine shop and auto mechanics, are now held in the Northeastern high, Barbour and Condon intermediate, and Wilson elementary schools.

17. All-day trade classes in millinery and sewing are conducted in the Joyce, Farrand, and Gillies schools.

18. A cafeteria class for Special-B girls is conducted in the Miller intermediate school.

19. Copies of Accident Prevention in the Machine Shop were distributed to all classes in junior continuation and intermediate machine shops, and programs for safety committees in these classes were outlined.

20. A survey was made of Heat Treat and Metallurgical work in industries of the city.

21. A special bulletin was prepared, on the activities coming under the direction of this department, for the Convention of the National Society of Vocational Education.

Household Arts

22. New printed courses of study in sewing were distributed to elementary schools. Courses of study in dressmaking and millinery for the intermediate schools and for girls' continuation classes have been completed.

23. Numerous talks on clothing in relation to the home have

been given before women's clubs, Parent-Teacher Associations, supervisors and principals, and over the radio.

24. Comparison and recognition scales have been used successfully during the year, with the purpose of checking up instruction.

25. Clothing and food exhibits have been prepared for the Junior Red Cross, State Teachers' Association, National Society of Vocational Education, National Red Cross Meeting at Cincinnati, Teachers' College, Columbia; State Teachers' College, Albany, N. Y., and for local schools.

26. Over 5,000 garments were made at Christmas, for the Junior Red Cross.

27. The instruction in sewing has been maintained in close co-operation with other activities in the schools—*i. e.* toy animals and dolls made for the kindergarten, costumes for the activities in the auditorium, etc.

28. The new course of study in domestic science for intermediate schools was distributed at the beginning of the school year. A course of study for continuation schools is being prepared, and a modified course for the sixth grade has been completed this year.

29. Food tests, formulated on the "Classification of Foods,"



Elementary Cooking Room

"Function of Foods," and "Organization of Meals" (having been used in an experimental way in various grades last year), have been more carefully standardized in the method of scoring and in directions for giving; and have this year been used in the seventh and eighth grades for the intermediate schools as an integral part of the work.

30. An experiment to determine the advisability of an interchange of activities for boys and girls in household mechanics and cooking classes was carried out with the eight-A class in the Alger school. A separate report has been submitted.

31. The quantity of food supplies per term, per cooking room, has been studied and standardized.

Vocational Information and Guidance

32. Twenty-eight counselors and teachers and 30 house principals took advantage of specific vocational counselor training courses provided through co-operation between the School of Education of the University of Michigan and the Detroit Board of Education.

33. A large number of occupational surveys in local industrial, commercial, and professional callings were conducted by 62 school counselors, house principals and teachers during the past year. These investigations and analyses resulted in a wide range of useful information pertaining to such pursuits as metal-working trades, building trades, telephone operators, clerical positions, wholesale drug industry, dentistry, nursing, social service, library work, restaurants, baking, printing and publishing, and the like.

34. Marked progress has been made in providing educational and vocational guidance facilities through vocational counselors in each intermediate school organization. The two-fold emphasis in the school counseling on this level is:

(a) Imparting reliable information on occupational possibilities to boys and girls.

(b) Assisting all pupils in more wisely choosing educational and vocational advantages.

35. Annotated lists of books have been prepared on educational and vocational guidance, to facilitate the use of library books and other sources of reading material.

36. A number of vocational surveys also have been con-



Elementary Art Room

ducted in automotive factories, laundry plants, printing and publishing houses, and other productive establishments, to ascertain the actual demands and changes affecting the courses of study and the equipment for individual and closely allied vocations.

Placement and Employment

37. Arrangements have been made whereby the workers in this division spend half their time visiting places of employment to report on progress of junior continuation students, secure positions, and bring back to the school information that will enable it to better its work with this group. Salaries of coordinators so engaged will be re-imbursable in part from federal and state funds.

38. During the year about 3,000 junior continuation and high school students have been placed in industry.

Fine Arts Education

Art

1. Material has been prepared for art appreciation. This includes compilations of lists of subjects, slides, and preparation of descriptive material and references.

2. The significance of art in its relationship to literature and the social sciences has been recognized. Outlines for the

following subjects have been issued: Armistice Day, Madonna and Christ Child, Lincoln, Washington, Landscape, Mother's Day, Memorial Day, and Art in Detroit.

3. Before Christmas, at the Hutchins intermediate school and Teachers College special programs were arranged and participated in by the Art department. Numerous talks have been made to pupils in the schools, at the Institute of Arts, and to Americanization evening classes.

4. Exhibitions have been held in connection with American education week at Teachers College, and the vocational convention by the art department of Cass technical high school, and the first Detroit Art Week at the Society of Arts and Crafts.

5. A notable feature of the contribution of the Art department was the Egyptian Pageant at Cass technical high school, first presented for the National vocational convention, and repeated by request during Art Week, under the direction of the Detroit Federation of Womens' Clubs.

6. An important precedent was established when arrangements were made with the Detroit Institute of Arts to have lecturers in their free lecture course give special lectures in the afternoon for intermediate, high school and college students.

7. High school students have participated in poster competitions inaugurated by St. Paul's Cathedral bazaar, Federation of Womens' Clubs, Art Week, and Michigan health exhibition. They have contributed posters to the national vocational convention and the Women's City Club.

Music

8. Twenty-five concerts by the Detroit Symphony Orchestra for elementary, intermediate, and high schools were held at Cass technical high school, as part of the regular school program, at no cost to those attending.

9. The music memory contest was conducted in all schools this year as last. The finals were held at Orchestra hall on April 14. Pupils in the sixth, seventh and eighth grades participated.

10. A new project this year was the organization and development of elementary school orchestras throughout the city. Much talent was discovered and great progress shown along lines of orchestral achievement.

11. Programs of a commendable nature have been given at

various times throughout the city, consisting of operas in the high schools and operettas in the elementary schools, as well as evenings of song, violin recitals, and orchestral concerts.

12. The importance of music in the school curriculum has been clearly demonstrated during the past year by contributions to programs for such occasions as Know Your School week, Father and Son week, parent-teacher meetings, etc. Realizing the importance of community singing and leadership, the department has cooperated and assisted at Americanization meetings, the illiteracy conference, the schoolmasters' club, teachers' meetings, Teachers College assembly, etc.

13. The circulating library of phonograph records, codas and operettas, has been revised and enlarged. The extensive use of this library has proved its worth.

Visual Education

1. The work of the Visual Education department has grown. The number of schools receiving motion picture service has in-



Nickel Lunch Room—Cooper School

creased from 37 to 45. Film service to intermediate and high schools has also been extended.

at the same time, gives the children special teachers in the various activities.

3. The elementary school organization has been carefully checked during the year and reorganizations instituted wherever economy was possible without reducing the quality of the service.

4. Lunch rooms have been opened in four elementary schools, the Cooper, Pattengill, Franklin, and Clippert. These lunch rooms furnish a five-cent plate lunch, and several hundreds of pupils are cared for in each building every day. The menus are advertised a week ahead and pupils are encouraged to supplement their lunches, each day by bringing food from home, to give them a balanced meal. These lunch rooms are under the general supervision of the domestic science department. With the completion of new buildings and additions now under construction more lunch rooms of this type will be opened.

SPECIAL EDUCATION

Psychological Clinic

1. Individual Binet examinations were given to 3,552 children and recommendations were made as follows:

Regular grades, 1,145; Special A classes, 1,180; Special B classes, 575; ungraded, 162; Special Preparatory, 85; institution or exclude, 90; continuation, 240, and miscellaneous, 75.

2. Nearly 100 pupils have been excluded from school on account of insufficient intelligence to benefit from instruction. After careful examination of several hundred cases over a period of years, it was decided that pupils whose mental age is less than five years and whose intelligence quotient is less than 60 should be excluded. Re-examination of excluded pupils is made frequently to determine their mental progress and possible readmission.

3. The social service department offers a very important auxiliary service not only in providing a complete case history of all examined, but also in the advice and correction of physical and sensory defects. Its work is a very essential part of the work of the psychological clinic.

4. During the 1922-23 school year, 53,000 individuals have been given group intelligence tests by members of the staff of the psychological clinic and by its accredited teachers.



Open Window Room—Cooper School

iners. In addition, about 2,700 were tested by examiners-in-training, and about 5,500 to 6,000 kindergarten pupils were examined before the close of the school year, for classification in the first grade in September, 1923.

Open Air and Open Window Rooms

1. Three new open air schools have been opened, the Frank-
lin, in September, and the Beard and Majeske in April, making a
total of eight open air schools and four hospital schools.

2. At the new three-room building was occupied the children able
to attend school and the bed patients
and bring them some of the high hand activi-
ties, magazines, and

3. Nine open window rooms for con-
finescent

4. The
en, all
oms and

Education of the Blind

1. A study of these classes shows the following different types: (a) Many pupils who were totally neglected and not in school; (b) some pupils who were placed in unfair competition with the normally sighted child; (c) several pupils who need not have been so handicapped, if proper treatment had been giving at the time it was needed; (d) another group who needed special methods of instruction only for short periods, during the process of continued treatments, and (e) several children who had other physical handicaps.

2. Even though no additional classes were organized this year, a larger number of children were cared for, and more pupils were returned to the regular grades than ever before.

Education of the Deaf

1. The Health Department has provided a clinic in the building, at which pupils in the school for the deaf may have their ears examined by an aurist to determine their physical condition and the possibilities of saving and perhaps increasing the residual hearing. A full time nurse is also allowed who works with the home and the school to bring about better physical conditions among the pupils.



Open Air School Lunch Room





Elementary School Clinic

2. From time to time hard of hearing pupils who are failures in their work are sent from the grades. It is possible that these failures might be lessened if attention might be given to these pupils when their defect is first discovered. Following the physical examinations conducted by the Health Department, a class in lip reading has been established with a group of such children at the Franklin school. The results are satisfactory and an extension of this work is planned for next year.

3. High power radio equipment has been used to determine its value to the child with defective hearing. This field of research with the deaf is still in its pioneer stage, but the results obtained are encouraging, and point the way to future developments. This is an additional step in the development of residual hearing as outlined last year.

Correction of Defective Speech

1. There were registered in these classes 2,240 children. Complete corrections were made in approximately 40 per cent of the cases; large or general improvement was noted in 40 per cent more cases, and the balance, or 20 per cent, made little improvement.

2. Tests in speech were given to all new pupils entering the department in September and October.

4. Three hundred and thirty eight tests with Gray's Oral Reading Paragraphs as a basis, were given to stammerers, with a median of 86.1 per cent.

5. Four hundred and fifty eight tests in Articulation Test No. I were given to pupils having a defective speech, with a median of 74.05 per cent. This tests simple consonant and vowel sounds.

6. Four hundred and ten tests in Articulation Test No. II were given to pupils having a defective speech, with a median of 57.4 per cent. This tests combinations of consonant sounds.

7. Five hundred and fifty seven tests in Articulation Test No. III were given to pupils who could not read Tests I and II, with a median of 67.38 per cent. This is a picture test for simple consonant and vowel sounds.

In connection with all tests except No. III the following points were tabulated: voice, resonance, pitch, syllabication, accent, continuity, attack, rhythm, pause and movements of speech.

8. In January, 1923, Articulation Test No. IV was given. This was to test whether the pupils, after one semester's work, associate correctly the sounds and printed symbols of the simple consonants and of the simple vowels. One thousand one hundred and seventy two tests were given, and a median of 91.7 per cent was obtained.

Education of the Crippled

1. The classification of cases registered during the year is as follows: (a) infantile paralysis, 43 per cent; (b) tubercular bones, 30 per cent; (c) spastic paralysis, 15 per cent; (d) congenital deformities, 5 per cent; (e) accident, 4 per cent, and miscellaneous, 14 per cent.

2. The application of plaster for the correction of deformities has been added to the routine work of the physiotherapy department. This work which was formerly done through the hospital clinics, not only makes it possible to keep the case under close observation, but also enables the children to continue their school without interruption.

3. A course in jewelry making has been added to the curriculum of the seventh and eighth grades. This has been a very satisfactory vocational activity for crippled children.

4. Binet tests have been given to 140 children, and 100 have been recommended to Special A classes.

Education of Backward Children—Group B

1. One new center for boys was opened this year at the Keating school, bringing the total registration to 1,252.
2. Monthly meetings were held to discuss Special B needs and outline new policies. Monthly reports on cooking, sewing, household arts, and manual arts were sent to the office. Records were kept of attendance calls and meetings attended.
3. Every academic teacher and many of the shop teachers in Special B classes were given an opportunity to visit regular grade classes and also other special work. This was made possible through the Department of Teacher Training.
4. A car fare survey was made which resulted in a re-distribution of pupils. A cooking survey was made to compare expenditures and types of materials. This survey resulted in better planned meals.

Special Preparatory Classes

1. Two special preparatory classes, Stephens and Clippert, were opened early in the year to replace the Maybury and Carstens, which were closed in June 1922. Six of these classes now care for typical special B pupils.
2. All transfers of pupils to special preparatory classes have been based on either group intelligence or Binet tests.
3. The educational tests used in the regular grades have been given.

Special Advanced Classes

1. Two of the centers for superior children, the Joyce and the Fairbanks, were entered into the regular intermediate schools. This was done so as to provide shop, gymnasium, and auditorium facilities. One center remains at the Northwestern high school because there was no intermediate school there but the class will be discontinued at the end of the year.
2. A new class was opened at the Sampson school for experimental purposes. This class has both the upper and lower levels of intelligence as found in the Sampson B-first grade. Accurate reports are being kept of the work done and it is expected to use the data in planning for X sections throughout the city.

Ungraded Classes

1. There are at present 13 ungraded classes for incorrigible pupils whose presence in the regular grades constitutes too great a problem in discipline to be successfully solved by the teacher—or whose management requires so great an outlay of her time that the consequent injustice to other pupils is evident. These schools are so located that reasonable accessibility to all parts of the city is insured.

2. The policy of the teacher in the ungraded rooms next year will remain as at present, his first object being the correction of irregularities of conduct and the second the securing of a degree of advancement in the standard academic subjects.

INTERMEDIATE SCHOOL EDUCATION

1. Additions to the Condon and Neinas intermediate schools have been completed and occupied during the year. An addition to the Miller intermediate school, adding about 700 to the capacity of the building, will be ready for occupancy in September, 1923. The new Jefferson intermediate school, 1,500 capacity, is under construction and will be occupied in September, 1923.

2. A general policy as to articulation between intermediate and high schools has been adopted.



Library—Cass Technical High School

3. Intermediate lunch rooms have been brought under central supervision.

4. Smith-Hughes classes have been developed in machine-shop, auto repair, and cafeteria work, variously distributed in three different schools.

5. The policy of merging the special-advanced or gifted children classes with the intermediate schools has been continued throughout the year.

6. Further intensive study has been given to refining the tentative course of study adopted for intermediate schools, in better adapting it to desirable methods of administration and teaching, and to the individual requirements of the child.

HIGH SCHOOL EDUCATION

1. The curriculum has been made over to conform to present needs and ideals. The main objective in the new arrangement is the development of the individual for the service of society. To secure this development attention is directed to health, the fundamental processes on which our civilization depends, home making,



Lunch Room—Southwestern High

citizenship, the proper use of leisure, character formation, and vocational education. Instead of permitting each pupil as heretofore to elect studies in accordance with his individual preferences, he shall

be required to pursue the same core curriculum, which will include health, English, mathematics, science, social arts, history, and the problems of democracy. This group of studies will comprise 80 per cent of the work in grade ten, 50 per cent in grade 11, and 20 per cent in grade 12. The remainder will be vocational or pre-vocational. For example, shop work, art, music, mechanical drawing, and typewriting may be directly vocational; foreign languages, formal algebra, and chemistry may and probably will be pre-vocational, as will also be many elective courses in various subjects.

2. All of the Detroit high schools were reaccruited by The North Central Association at its meeting in March, 1923.

3. The records made at colleges this year by the graduates of the Detroit schools have been better than in most years. Of the 39 students in the college of literature, science and arts of the University of Michigan who won all A marks for their work during the first semester of the current year, Detroit sent seven: Charles Ainsworth, Harriet Blum, N. Feisinger, Lawrence Folsom, Walter P. Gable, Clara Lau, and Miller Williams. In the Engineering Department similar distinction was won by Ernest James Abbott,



Corridor

High

subjects was required for passing, thus: Arithmetic 3, English 3, history 3=9=passed.

3. A tabulation of a cross-section of the records of 1,000 pupils shows the average effect of summer school attendance. This is essentially the same as the result of a similar tabulation of the records of the 1921 summer school.

Table 11—Effect of Summer School Attendance

Type of Pupil	Average Mark in Basic Subjects*				Percent of This Type in Summer School
	In June Regular School	In August Summer School	In January Regular School	In January Summer School	
1. Advancing	2.10 P	2.13 P	2.46 P		69
2. Strengthening	2.66 P	4.06 N	2.66 P		20
3. Making up Failure	3.63 N	2.63 P	2.83 P		9
4. Attempting to Make up Failure	3.86 N	4.16 N	2.9 P		2

* P—Passed. N—Not Passed.

4. The summer school plant embraced two colleges, one academic high school, one technical high school, four continuation centers, 13 elementary schools, two branch elementary schools, seven open air schools, and one training center for grades one to four.

DETROIT TEACHERS COLLEGE

1. The year 1922-1923 has been one of continued growth for the college. The maximum registration in the regular session was 848, as compared with 630 and 467 for the two preceding years. There has been a noticeable increase in the number of men students.

2. Three hundred and fifty-eight life certificates were granted as compared with 237 and 191 for 1921-1922 and 1920-1921 respectively.

3. The courses of the third and fourth years have been partially organized, and hundreds of teachers have been enrolled for advance work in the evening and summer sessions; 95 have definitely registered as candidates for the degree of bachelor of science in education, and six have practically met the degree requirements.

4. The teacher training department has enriched the course of study and increased the amount of practice to meet the city's

demands for suitably trained teachers. The Marr, Wingert, and McGraw schools with a staff of 75 training teachers are used as training centers, two being platoon schools and one a non-platoon school. At the present time each student is required to do 360 hours of student teaching distributed as follows: 90 hours during the first year, 90 during the first semester of the second year, and 180 in six weeks of all-day teaching in the city schools during the second semester of the second year. The courses for student teaching enable students to proceed according to individual abilities. The administration of the student teaching is handled by the training teachers through councils and various committees elected from their own members. All-day teaching makes possible the relief of teachers in the service who are thereby enabled to make contributions to the city system.

5. During the year the probationary department has arranged for the assignment and transfer of 1197 teachers and has supplied calls for 33,554 days of emergency substitute service. It has aided in the assimilation of 562 teachers, new to the city, it has made 1,595 visits to cadet teachers, and has held 97 training meetings at the college with a total attendance of 1,511. Five hundred and eighty-four city teachers were relieved by students for the purpose of visiting other schools. Three hun-



Foundry—Cass Technical High School

died and one city teacher have been relieved for periods varying in length by Teachers College students who have been made available by the six weeks' period of all day teaching. Five hundred and eighty-four Teachers College students were placed in schools at the opening and closing of terms to facilitate adjustment.

COLLEGE OF MEDICINE AND SURGERY

1. For the session of 1922-1923 the Detroit College of Medicine and Surgery registered 193 students of whom 164, or 84.9 per cent, were residents of Detroit.

2. During this year the building fronting on 125 Mullett street, which has been occupied for some years by the Board of Health of the City of Detroit for laboratory purposes, was completely remodelled and will in the future house the departments of physiology and biochemistry. This building will also house, on the first floor, the medical library of the City of Detroit. This library, which consists of approximately 15,000 reference books and bound journals, was formerly cared for by the Wayne County Medical Society in its building, 36 East High street. By its transfer to the premises of the medical school it becomes much more available both to the medical profession at large and to the faculty and students of the school. A considerable amount of reconstruction has been carried on in the main building fronting on 13th St. Antoine street, involving a large expansion of the department of anatomy, histology, and embryology and the creation of a reading room and working library immediately adjacent to the college office.

3. The clinical instruction during the year has been carried on in Receiving, Herman Kiefer, Children's Free, and St. Mary's Hospitals and the Detroit Eye, Ear, Nose and Throat Hospital, 112 West Adams avenue. Excellent correlation has been maintained between the activities of the college and of the hospitals, an arrangement having been brought about by which the case histories of the students become formal parts of the records of the hospital concerned. The stu-

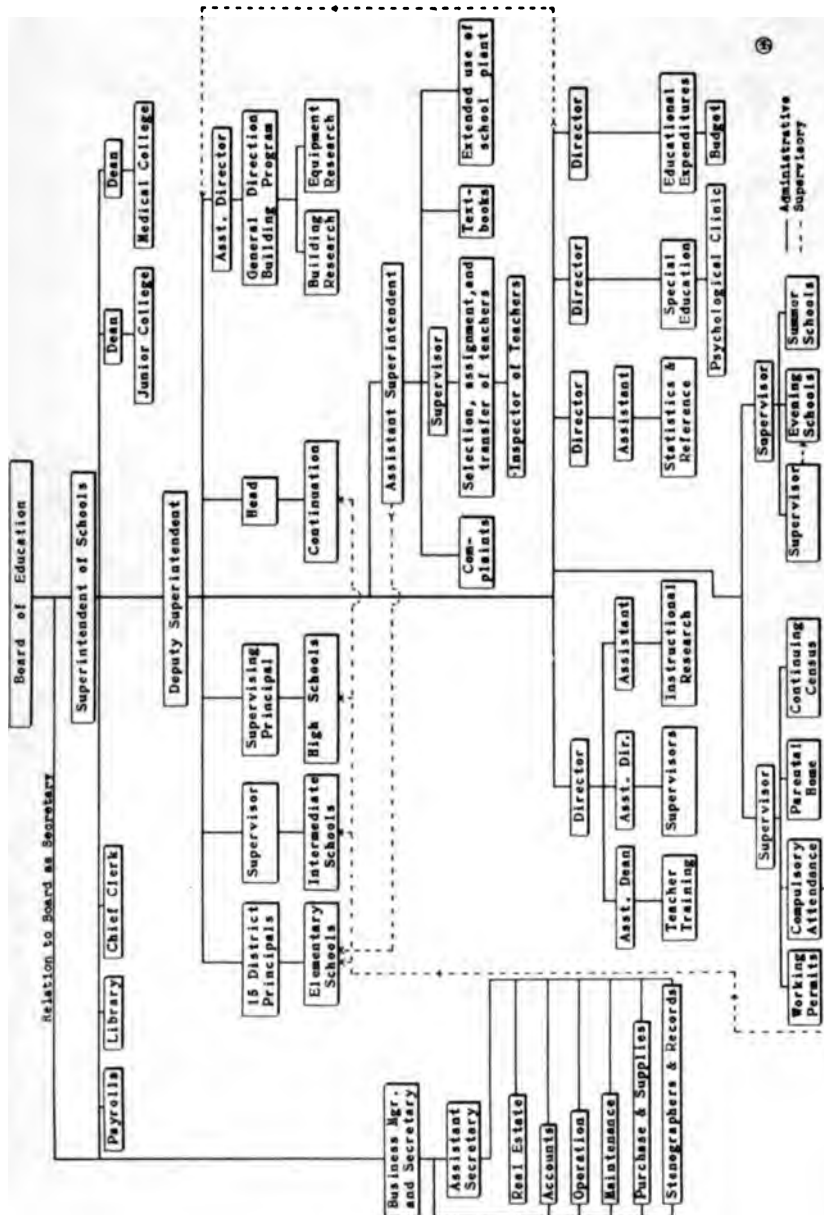


Diagram 9—Superintendent's Organization, 1922-23

(1) Instruction (supervision) : (2) teacher training (Teachers College), and (3) instructional research (measurement).

The second unit is Statistics and Reference, including records, publications, financial and administrative research.

The third department is Educational Expenditures, including personal service, furniture and equipment, books and supplies, internal accounting, the high school auditor and the preparation of the budget.

The fourth department is Special Education, including the Psychological Clinic and nine divisions of classes for exceptional children.

5. Assistant Directors

There are two assistant directors. One has charge of building research and the building program under the direction of the deputy superintendent.

The second has charge of supervision under the Director of Instruction, Teacher Training, and Research.

6. Supervisors

There are two administrative supervisors, one in charge of Americanization work, evening and summer school education. The second supervisor has administrative control of the continuous school census and has supervisory control of the attendance officers who are responsible to the district, intermediate and high school principals. He handles all referred cases and carries them into court.

Part V—School Buildings

ELEMENTARY SCHOOL

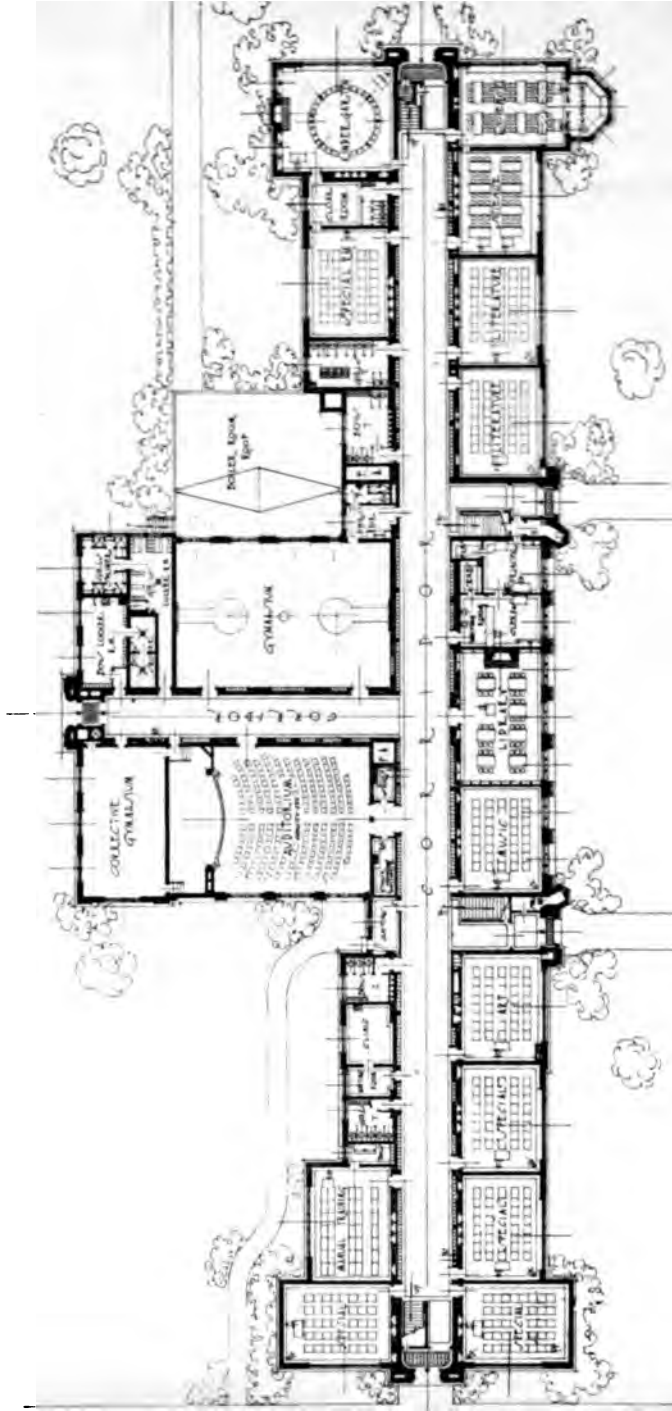
THE third phase in the development of the Detroit elementary school plan, designed to meet the specific needs of a modern curriculum, is represented by the Brady type. The Pattengill is typical of the completed closed court building and the Duffield of the E type, each designed for 48 regular sections and the necessary complement of special classes.

The Brady plan illustrates the tendency towards an H plan. The preference for this over the Duffield type is due to the fact that each 24 section unit represents a complete school building architecturally and educationally, and can be more easily oriented to different sites.

The maximum capacity of the Brady type is 1,380 children distributed as follows: 24 section platoon organization, 960; kindergarten, 120; seven special rooms, 280, and speech correction room, 20.

The 24 section unit includes the following accommodations:

First floor		2 Girls' toilets		18' x28' and
1 Auditorium	40' x54'			12' x12'
1 Gymnasium	40' x60'	1 Janitors' room		8' x16'
1 Boys' locker & shower rooms	18' x24'			
		Second floor		
1 Girls' locker & shower rooms	12' x36'	12 Home rooms		22' x30'
1 Corrective gym.	23' x41'	1 Open window room		22' x30'
5 Special rooms	22' x30'	1 Speech correction room		12' x30'
1 Manual training room	22' x32'	1 Cooking and sewing room		28' x32'
1 Art room	22' x30'	1 Teachers' study room		23' x38'
1 Music room	22' x30'	1 Special class room		23' x41'
2 Literature rooms	22' x30'	1 Kitchen		14' x20'
2 Science rooms and conservatory	22' x30'	1 Lunchroom		25' x40'
1 Library	23' x38'	2 Boys' toilets		8' x22' and
1 Kindergarten	28' x32'			8' x22' and
1 Kindergarten toilet and cloak room	12' x26'			13' x22'
1 Clinic	12' x26'	2 Girls' toilets		18' x28' and
1 Administration suite	23' x30'			12' x12'
1 Physical director's office	14' x22'	1 Women teachers' rest room		14' x22'
2 Boys' toilets	13' x22' and 12' x14'	1 Janitors' room		9' x12'



Brady Type Elementary School—First Floor

Malcomson, Higginbotham & Palmer, Architects.



Brady Type Elementary School—Second Floor

Unit Construction

The Brady type may be constructed in three units or sections, according to the neighborhood needs. The first unit, indicated by the cross hatching in the accompanying diagram, consists of 12 classrooms, kindergarten, a room on the second floor that can be used as a small auditorium, and a small administrative office. In it can be accommodated a 12-section platoon organization, a kindergarten, and one non-platoon room, a total of 640. The Sherrill school is representative of the first unit.

Addition of the second unit results in a building with gymnasium, 1 kindergarten, 16 classrooms, 1 room used as auditorium, 1 speech correction room, 1 small administrative office unit, 1 library, 1 clinic, and 1 teachers' work room. The Priest school is being planned to include the first and second units, which provide for a 20-section platoon organization, giving a total capacity, including kindergarten and speech correction rooms, of 940 children. Completion of the third section results in the complete 24 section unit, with a full complement of special rooms.

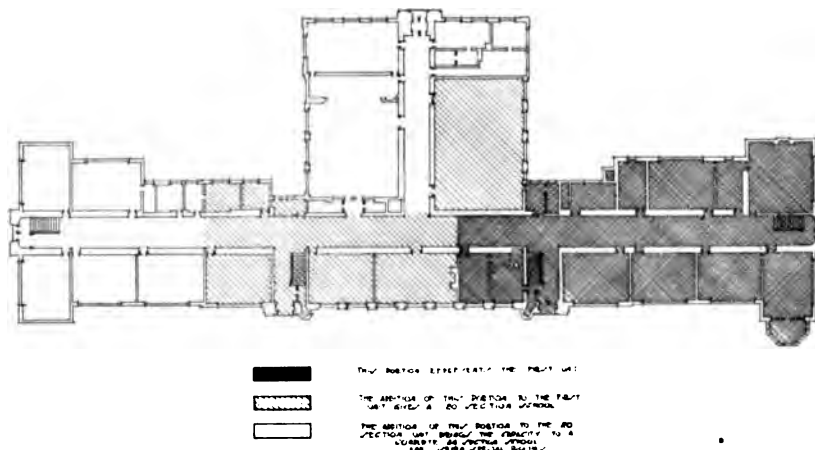
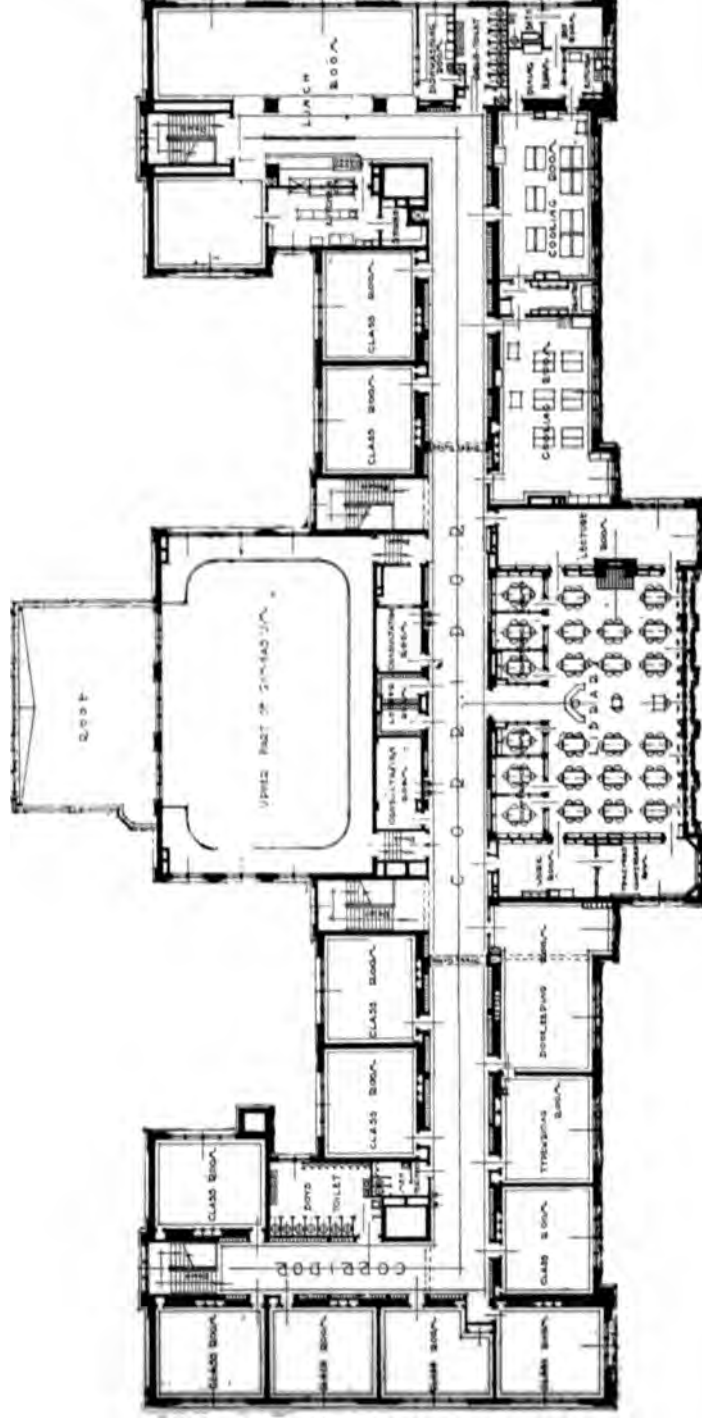


Diagram 10—Unit Construction

INTERMEDIATE SCHOOL

The Jefferson intermediate school, a 1500 unit, represents the second plan for this type of building. Owing to a restricted site, the Barbour plan was unavailable. The new plan is a more compact unit due to the further development and refinement of the curriculum. The accommodations of the Jefferson building consist of:

First floor					
	Dimen- sions	Pupil Capa- city		Dimen- sions	Pupil Capa- city
1 Machine shop	22x44	35	1 Consultation room	22x14	20
1 Wood Shop	22x52	35	1 Teachers' work room	22x35	
1 General shop	22x50	35	1 Administrative office	22x50	
7 Class rooms	22x26	35	1 Consultation room	26x10	10
2 Community rooms	22x26		2 Art rooms	22x35	35
3 Science rooms	22x35	35	2 Sewing rooms	22x46	35
1 Clinic	22x26		1 Gymnasium	80x80	105
1 Boys' plunge	20x45	35	1 Gymnasium	48x30	50
1 Girls' plunge	20x45	35	1 Boys' toilet		
(dimensions of pool)			1 Girls' toilet		
1 Boys' locker room	36x48				
(750 lockers)					
1 Boys' shower room	14x30				
(1 lane type shower)					
1 Girls' shower room	22x46				
(40 shower heads)					
1 Girls' locker room	40x48				
(750 lockers)					
2 Community locker rooms	12x14				
(74 lockers)					
1 Auditorium and balcony	450 seats				
1 Boys' toilet					
1 Girls' toilet					
Second floor			Third floor		
8 Class rooms	22x26	35	1 Music room	22x26	35
1 Mechanical drawing room	22x35	35	9 Class rooms	22x26	35
			1 Typewriting room	22x26	35
			1 Bookkeeping room	22x36	35
			1 Library	30x60	150
			(Conference and work rooms additional)		
			1 Library class room	12x44	35
			2 Cooking rooms	22x40	35
			1 Model suite	22x26	
			1 Lunch room and kitchen	60x60	
			(280 per sitting)		
			2 Consultation rooms	12x20	
			1 Boys' toilet		
			1 Girls' toilet		




Jefferson Intermediate School—Third Floor

THE ROOSEVELT GROUP

In the development of the first group of building plans for Roosevelt field, including elementary, intermediate, high, and Teachers College buildings, the board of education followed a new procedure. The Michigan chapter of the American Institute of Architects and the Michigan Society of Architects submitted to the board of education the names of ten firms of architects who, in their opinion, were qualified to collaborate in the preliminary studies for the Roosevelt group. The board of education on June 8, 1922, selected Messrs. Donaldson & Meier, Albert Kahn, and Messrs. Smith, Hinchman, and Grylls to cooperate with Messrs. Malcomson, Higginbotham, and Palmer. This group of architects recommended that, as the first step in the competition, Messrs. Malcomson, Higginbotham, and Palmer prepare sketch plans of the proposed group of buildings and that the competition be based upon exterior design all prepared from these general floor sketches.

The four sketches were presented in December, 1922, and voted upon by the four architects, each firm voting on three plans. As a result of this vote the exterior sketches were rated: first, Malcomson, Higginbotham, and Palmer; second, Albert Kahn; third, Smith, Hinchman, and Grylls, and, fourth, Donaldson & Meier. At the meeting of December 28, 1922, the board of education considered the recommendations of the group of architects and selected Malcomson, Higginbotham, and Palmer as the architects for the first group of buildings to be erected on Roosevelt field. The four competition sketches are shown on the following pages in order of their rating by the architects.

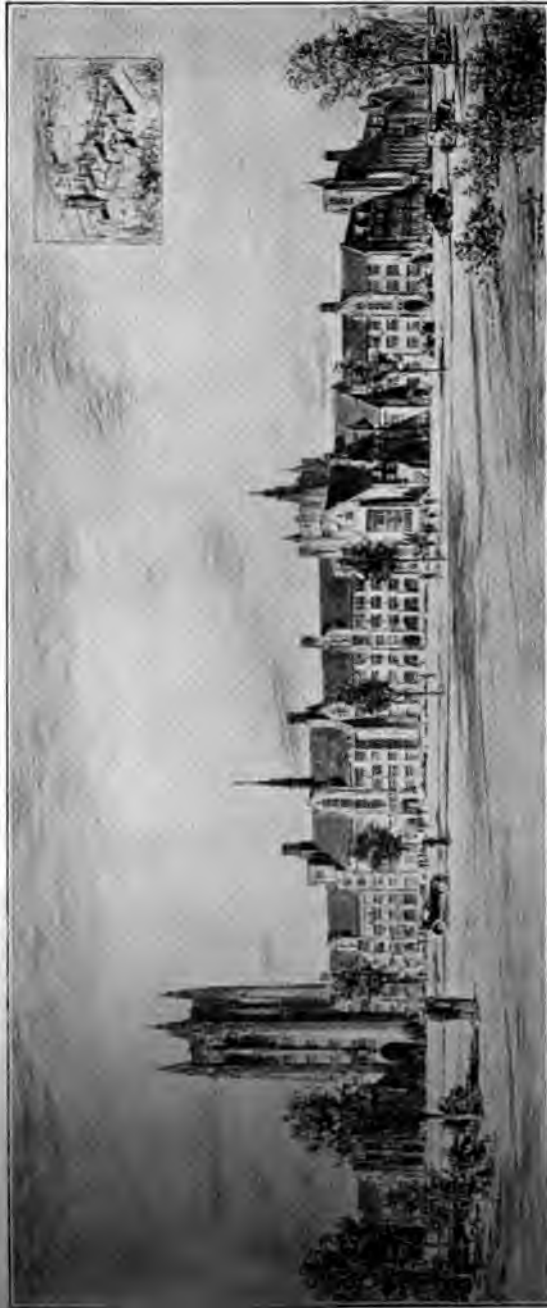




Roosevelt Group—Malcolmson, Higginbotham and Palmer



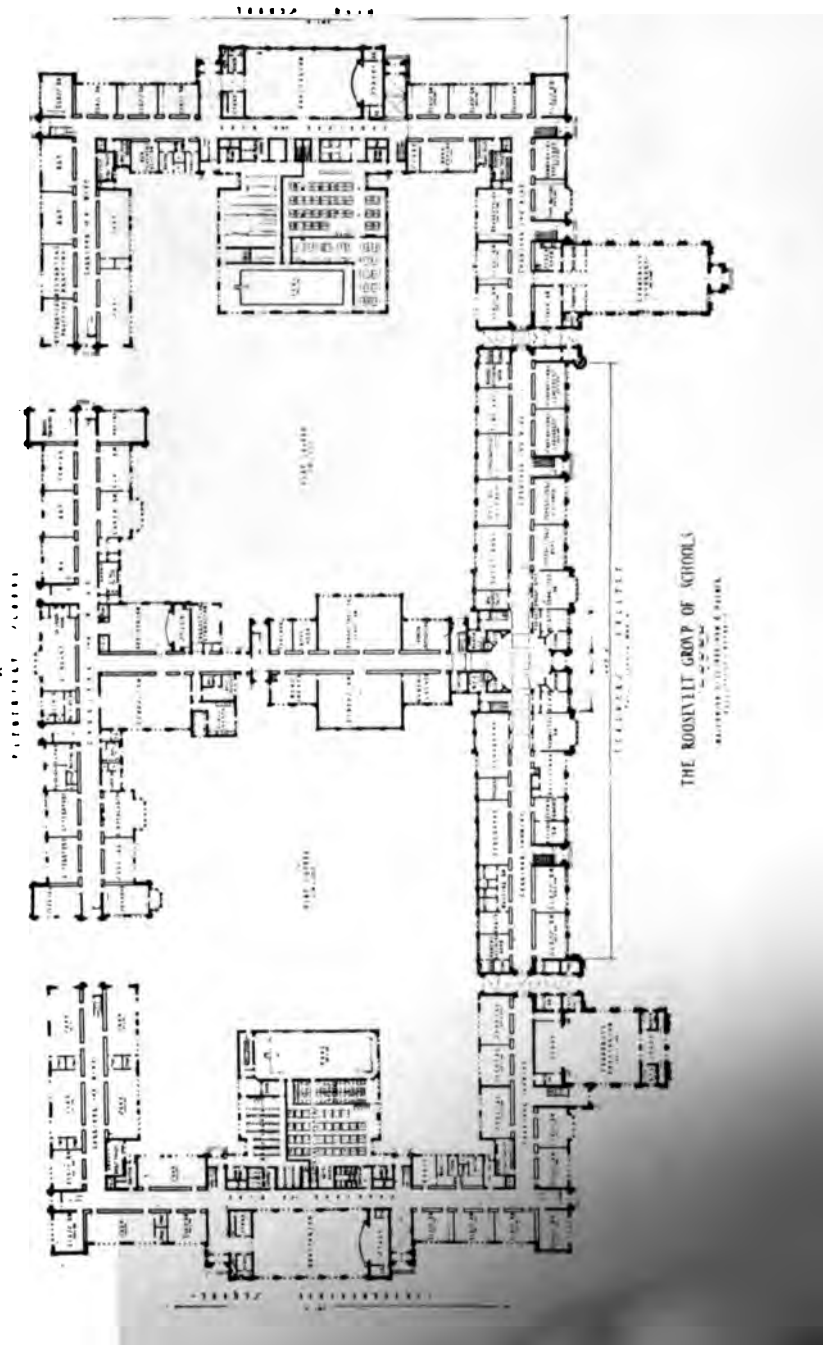
Roosevelt Group—Albert Kahn



Roosevelt Group—Smith, Hinchman and Grylls



Roosevelt Group—Donaldson and Meier



Capacity Added in 1922-23

The new schools and additions completed during the year 1922-23 provided capacity for 5100 elementary pupils, 280 intermediate pupils, and 3800 high school pupils. These data are shown in detail in the following table:

Table 12—School Capacity Added in 1922-23

School	Month Occupied	Size of Bldg. or Addition	Standard* Capacity
Elementary:			
Burton	Sept. 1922	A-G-2 rooms	240
Chandler	Sept. 1922	A-G-4 rooms	320
Clippert	Nov. 1922	A-G-13 rooms	680
Courville	Jan. 1923	K-11 rooms	500
Greenfield Park	Nov. 1922	K-10 rooms	520
Guyton	Jan. 1923	K-12 rooms	540
Holmes, O. W.	Nov. 1922	A-G-K-11 rooms	720
Hosmer	Jan. 1923	K-12 rooms	540
Keating	Feb. 1923	14 rooms	560
Marcy	Oct. 1922	Aud. Gym.	160
Stephens	Sept. 1922	8 rooms	320
Total Elementary			5,100
Intermediate:			
Condon	Jan. 1923	Gym.	100
Neinas	May 1923	A-G	180
Total Intermediate			280
High:			
Cass	Oct. 1922	New unit complete	3,600
Northwestern	Sept. 1923	Gym., pool, alter.	200
Total High			3,800
Special:			
Beard open air	May 1923	Standard	80
Majeske open air	May 1923	Standard	80
Total			160

*Estimated on basis of 40 per classroom.

School Building Costs

In presenting a study of comparative unit costs by years three new schools and three typical additions were considered for the year 1922-23. The average cost of 37 cents per cubic foot for all contracts let during the first half of the year is practically the same as during 1921-22. During the latter part of 1922-23 there was a marked ¹ toward advancing costs, due to more active

Table 19—Statement of the Cost of Co-ordinate Activities for the Year Ending June 30, 1923

Elementary		
Salaries of Attendance Teachers	\$29,513.78	
Other Expenses	2,089.87	
		\$31,603.65
Special		
Salaries of Attendance Teachers	\$2,995.73	
Other Expenses	241.14	
		3,236.87
Intermediate		
Salaries of Attendance Teachers	\$12,239.88	
Other Expenses	884.17	
		13,124.05
High		
Salaries of Attendance Teachers	\$5,619.70	
Other Expenses	442.08	
		6,061.78
Technical		
Salaries of Attendance Teachers	\$2,211.99	
Other Expenses	200.95	
		2,412.94
Commercial		
Salaries of Attendance Teachers	\$548.33	
Other Expenses	40.19	
		588.52
Vocational Trade and Continuation		
Salaries of Attendance Teachers	\$1,703.84	
Other Expenses	120.58	
		1,824.42
Total Co-Ordinate Activities		\$58,852.23

Table 20—Statement of the Cost of Operation of the School Plant for the Year Ending June 30, 1923

Salaries—Engineers and Assistants	\$150,296.67	
Salaries—Janitors and Assistants	628,917.04	
Supplies	20,102.85	
Gas	8,260.76	
Electricity	13,919.24	
Fuel	382,103.06	
Telephone	19,832.96	
		\$1,523,432.58

Table 21—Statement of the Cost of Maintenance of the School Plant for the Year Ending June 30, 1923

Repairs to Buildings—Labor and Materials	\$228,959.45	
Repair and Replacement of Engineers and Janitors		
Equipment	6,974.65	
Upkeep of Grounds	6,694.03	
Repair and Replacement of Educational Equipment		
and Furniture	38,422.08	
Still Alarm Service	2,253.75	
		\$283,303.96

Table 22a—Statement of the Student Hour and Per Capita Cost of the Detroit Public Schools
for the Year Ending June 30, 1923

SCHOOLS	Teaching Cost	Adminis- trative School Cost	Total Instruction Cost	Operation	Main- tenance	Adminis- tration	Super- vision	Co- ordinate Activities	Auxiliary Agencies, Fixed Charges, etc.	Total Cost	Aver- age Mem- bership	Total Student Hours
Elementary*	\$4,837,637.96	\$631,068.21	\$5,468,706.17	\$784,595,348.17	\$173,298,205.25	\$3,028,177,823.45	\$31,603.65	\$94,636.01	\$6,923,790.93	98,299	80,277,165	
Specials	526,365.08	34,491.73	560,856.81	38,205.28	7,619.12	20,894.02	17,714.21	3,236.87	51,882.97	700,409.28	6,449 (a)	3,977,834
Intermediate**	1,961,714.97	319,217.07	2,280,932.04	378,047.02	55,907.77	85,624.51	74,604.09	13,124.06	14,065.14	2,902,304.62	25,575	23,515,022
Comprehensive High***	854,269.95	197,877.11	1,052,147.06	168,856.28	34,698.09	39,329.20	33,725.24	6,061.78	6,460.54	1,341,278.19	9,213	6,729,108
Cass Technical High	332,320.58	47,809.81	380,130.39	69,514.62	10,818.91	14,339.73	11,923.03	2,412.94	2,355.41	491,495.03	2,630	2,163,368
Continuation	246,819.05	49,888.44	296,707.49	40,826.05	6,353.97	11,061.54	9,197.65	1,824.42	1,817.03	367,788.15	3,288	1,246,624
Det. High School of Commerce	83,325.77	18,526.42	101,852.19	11,657.99	2,209.34	3,687.18	3,065.92	588.52	605.68	123,666.82	1,090	818,778
College†	248,135.61	46,224.47	294,360.08	22,718.26	3,926.52	11,061.54	.....	.....	1,817.03	333,883.43	1,970	1,061,363
Det. Coll. of Med. and Surg.	222,848.64	31,940.74	254,789.38	9,011.74	596.95	3,277.49	.....	.....	538.38	97,215.49	193	(b)
Evening Schools	128,356.41	20,490.08	148,846.49	.....	.....	9,422.79	7,835.13	.....	1,547.84	273,595.14	20,221	1,596,778
Summer Schools	.....	.....	.....	.....	.....	5,735.65	4,769.23	.....	942.14	160,293.51	12,927	1,625,889
Total	\$9,441,794.02	\$1,397,534.08	\$10,838,328.10	\$23,432,589,523.43	\$2,303,964,686.67	\$340,657.95	\$58,852.23	\$176,668.17	\$13,715,720.59	\$179,700	123,011,929	

Table 22b—Student Hour Cost of Above Activities

SCHOOLS	Teaching Cost	Administrative School Cost	Total Instruction Cost	Operation	Maintenance	Administration	Supervision	Co-ordinate Activities	Auxiliary Agencies, Fixed Charges, etc.	Total Cost
Elementary*	\$.0603	\$.0078	\$.0681	\$.0098	\$.0020	\$.0025	\$.0022	\$.0004	\$.0012	\$.0862
Specials	.1323	.0086	.1409	.0097	.0019	.0053	.0045	.0008	.0130	.1761
Intermediate**	.0834	.0135	.0969	.0161	.0024	.0036	.0032	.0006	.0006	.1234
Comprehensive High***	.1270	.0293	.1563	.0251	.0052	.0058	.0050	.0009	.0010	.1993
Cass Technical High	.1536	.0220	.1756	.0321	.0050	.0066	.0055	.0011	.0012	.2271
Continuation	.1980	.0400	.2380	.0327	.0051	.0089	.0074	.0015	.0014	.2950
Det. High School of Commerce	.1017	.0226	.1243	.0142	.0027	.0045	.0037	.0008	.0008	.1510
Collegiate	.2338	.0411	.2749(c)	.0214	.0037	.0104	.....	.....	.0017	.3121
Det. Coll. of Med. and Surg. (b)	.1396	.0200	.1596	.....	.....	.0050	.0049	.....	.0009	.1713
Evening Schools	.0789	.0126	.0915	.....	.....	.0035	.0029	.....	.0006	.0985
Summer Schools	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Table 22c—Per Capita Cost of Above Activities

SCHOOLS	Teaching Cost	Administrative School Cost	Total Instruction Cost	Operation	Maintenance	Administration	Supervision	Co-ordinate Activities	Auxiliary Agencies, Fixed Charges, etc.	Total Cost
Elementary*	\$.49.21	\$.6.42	\$ 55.63	\$ 7.98	\$ 1.64	\$ 2.09	\$ 1.81	\$ 0.32	\$ 0.96	\$ 70.43
Specials	81.62	5.35	86.97	5.92	1.18	3.24	2.75	.50	8.05	108.61
Intermediate**	76.70	12.48	89.18	14.78	2.19	3.35	2.92	.51	.55	113.48
Comprehensive High***	92.72	21.48	114.20	18.33	3.77	4.27	3.66	.66	.70	143.59
Cass Technical High	126.36	18.18	144.54	26.43	4.11	5.45	4.53	.92	.90	186.88
Continuation	75.07	15.17	90.24	12.42	1.93	3.36	2.80	.55	.55	111.85
Det. High School of Commerce	76.45	16.99	93.44	10.70	2.03	3.38	2.81	.54	.56	113.46
Collegiate	125.96	22.14	148.10(c)	11.53	1.99	5.61	.....	.....	.92	168.15
Det. Coll. of Med. and Surg.	11.02	1.58	12.60	46.69	3.10	16.98	.....	.....	2.79	503.71
Evening Schools	9.93	1.59	11.52	.....	.....	.47	.39	.....	.08	13.54
Summer Schools	.....	.....	.....	.....	.....	.44	.37	.....	.07	12.40

*Includes Kindergarten and Grades 1 to 6 inc.

(a) 2155 defective speech pupils are also counted in the various grades.

(b) Student hours not furnished.

(c) Student hour and per capita cost of instruction, exclusive of rural schools.

**Grades 7, 8 and 9.

***Grades 10, 11 and 12.



Guyton Elementary School



Biology Laboratory—Cass Tech. High School

Part VII—Statistical Studies

MEMBERSHIP BY GRADES, 1919-20 TO 1922-23

Kindergarten

The increase in kindergarten membership showed a consistent gain over 1921-22, particularly during the second semester. It appears to be fairly well established that the peak load occurs during January.

Diagram 13—Kindergarten Membership

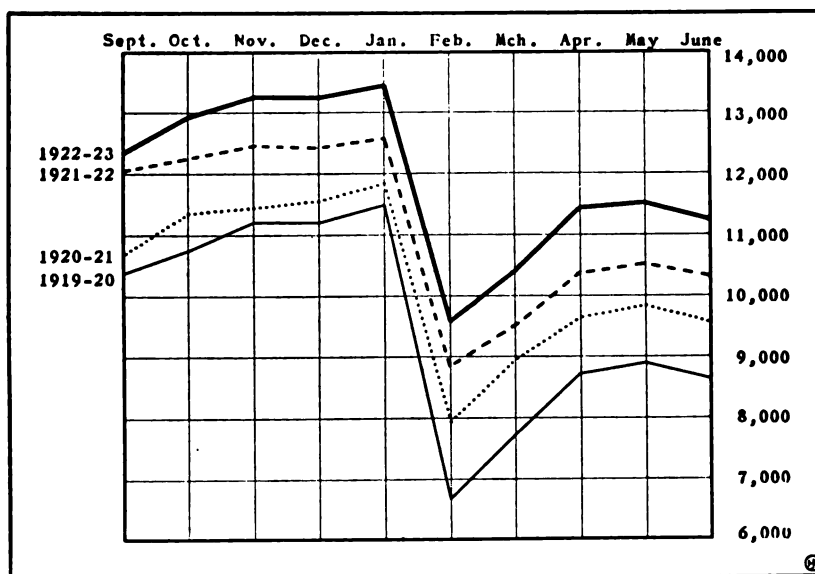


Table 23—Kindergarten Membership

Month	Membership				Increase	
	1919-20	1920-21	1921-22	1922-23	1922-23 over 1921-22 No.	%
September	10,370	10,697	12,053	12,357	304	2.5
October	10,750	11,354	12,241	12,923	682	5.6
November	11,197	11,447	12,463	13,254	791	6.3
December	11,185	11,553	12,417	13,232	815	6.6
January	11,478	11,837	12,582	13,423	841	6.7
February	6,662	7,944	8,845	9,577	732	8.3
March	7,722	8,953	9,515	10,395	880	9.2
April	8,725	9,639	10,376	11,444	1,068	10.3
May	8,891	9,841	10,520	11,517	997	9.5
June	8,630	9,583	10,320	11,246	926	9.0
Av. Membership	9,515	10,075	10,849	11,724	875	8.1
Per Cent of Attend.	75.5	78.7	77.2	77.9	0.7	0.9

First Grade

First grade membership showed a decrease over 1921-22 for the first five months and then proceeded to gain steadily each month. The peak load occurred during April, whereas it has previously been in November.

Diagram 14—First Grade Membership

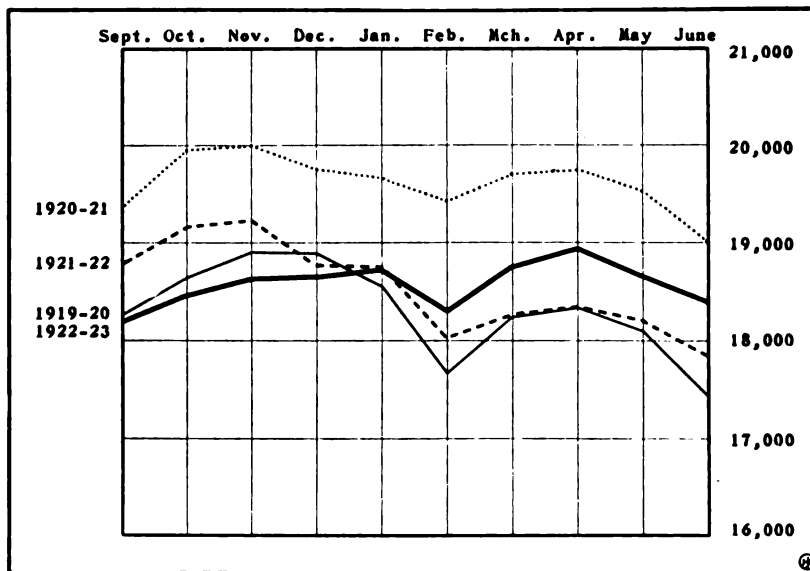


Table 24—First Grade Membership

Month	Membership				Increase	
	1919-20	1920-21	1921-22	1922-23	1922-23 over 1921-22 No.	%
September	18,270	19,371	18,788	18,194	—594	—3.2
October	18,636	19,956	19,156	18,457	—699	—3.6
November	18,905	20,002	19,222	18,620	—602	—3.1
December	18,888	19,745	18,762	18,651	—111	—0.6
January	18,555	19,658	18,746	18,715	—31	—0.2
February	17,663	19,431	18,023	18,292	269	1.5
March	18,242	19,704	18,269	18,751	482	2.6
April	18,334	19,739	18,323	18,930	607	3.3
May	18,101	19,525	18,206	18,658	452	2.5
June	17,446	19,153	17,848	18,396	548	3.1
Av. Membership	18,127	19,536	18,410	18,456	46	0.3
Per Cent of Attend.	84.1	86.9	85.9	85.6	—0.3	—0.3

Second Grade

The second grade membership, after September and October, followed closely that of 1921-22, and the peak load came in May.

Diagram 15—Second Grade Membership

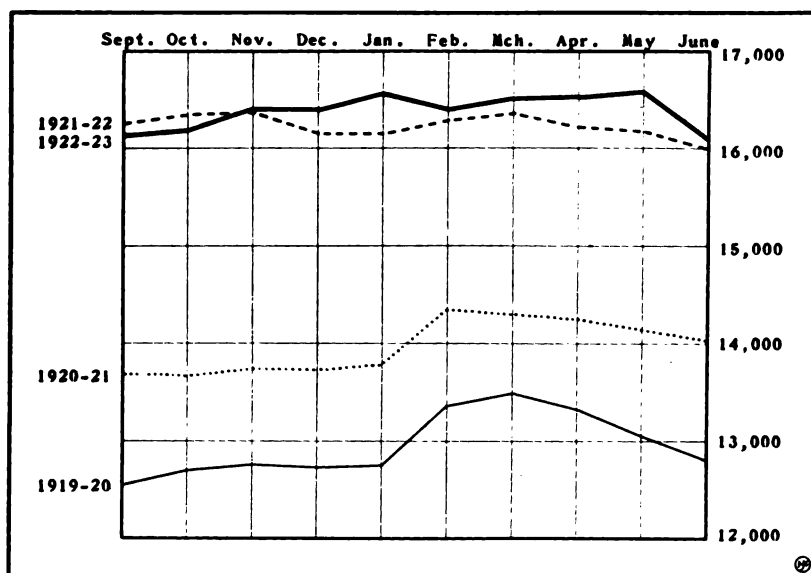


Table 25—Second Grade Membership

Month	Membership				Increase	
	1919-20	1920-21	1921-22	1922-23	1922-23 over 1921-22 No.	%
September	12,545	13,687	16,254	16,123	—131	—0.8
October	12,692	13,660	16,337	16,187	—150	—0.9
November	12,760	13,730	16,370	16,390	20	0.1
December	12,728	13,726	16,150	16,393	243	1.5
January	12,751	13,775	16,151	16,553	402	2.5
February	13,364	14,342	16,287	16,389	102	0.6
March	13,489	14,296	16,353	16,505	152	0.9
April	13,317	14,244	16,212	16,520	308	1.9
May	13,054	14,127	16,174	16,575	401	2.5
June	12,814	14,033	16,003	16,113	110	0.7
Av. Membership	12,937	13,978	16,120	16,299	179	1.1
Per Cent of Attend.	88.2	90.3	89.9	89.8	—0.1	—0.1

Third Grade

An unusual and constant growth occurred in the third grade. The trend was upward throughout the year with the peak in March, but with very little falling off during the succeeding months.

Diagram 16—Third Grade Membership

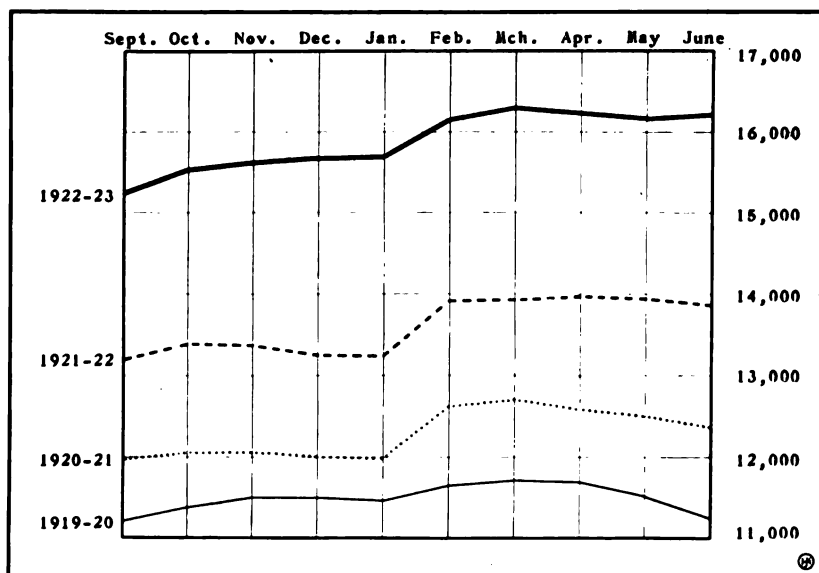


Table 26—Third Grade Membership

Month	Membership				Increase	
	1919-20	1920-21	1921-22	1922-23	1922-23 over 1921-22 No.	%
September	11,220	11,967	13,195	15,254	2,059	15.6
October	11,376	12,049	13,383	15,524	2,141	16.0
November	11,502	12,045	13,371	15,616	2,245	16.8
December	11,497	12,008	13,252	15,672	2,420	18.3
January	11,456	11,993	13,241	15,696	2,455	18.5
February	11,648	12,624	13,921	16,140	2,219	15.9
March	11,709	12,706	13,930	16,288	2,358	16.9
April	11,689	12,581	13,968	16,222	2,254	16.1
May	11,519	12,504	13,940	16,165	2,225	16.0
June	11,249	12,359	13,869	16,208	2,339	16.9
Av. Membership	11,444	12,305	13,595	15,809	2,214	16.3
Per Cent of Attend.	90.4	91.8	91.3	91.3	0	0

Fourth Grade

Fourth grade membership followed the same trend as in the third grade. The peak was reached during March. The second semester growth was far greater than during the first part of the year.

Diagram 17—Fourth Grade Membership

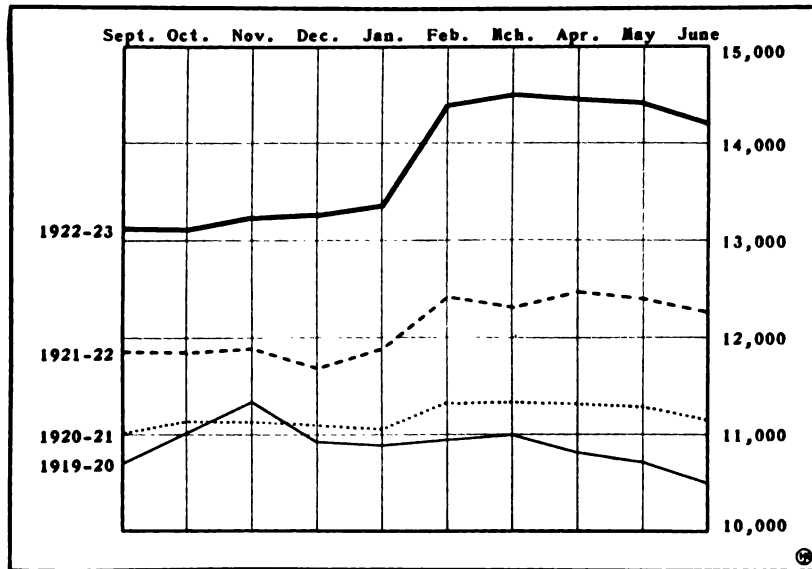


Table 27—Fourth Grade Membership

Month	Membership				Increase	
	1919-20	1920-21	1921-22	1922-23	1922-23 over 1921-22 No.	%
September	10,707	11,008	11,856	13,117	1,261	10.6
October	11,015	11,130	11,850	13,110	1,260	10.6
November	11,338	11,121	11,884	13,226	1,342	11.3
December	10,918	11,096	11,682	13,264	1,582	13.5
January	10,886	11,041	11,878	13,346	1,468	12.4
February	10,949	11,315	12,420	14,391	1,971	15.9
March	10,996	11,334	12,315	14,493	2,178	17.7
April	10,810	11,315	12,470	14,444	1,974	15.8
May	10,714	11,281	12,400	14,410	2,010	16.2
June	10,504	11,141	12,278	14,207	1,929	15.7
Av. Membership	10,774	11,225	12,085	13,780	1,695	14.0
Per Cent of Attend.	90.9	92.1	91.7	91.6	-0.1	-0.1

Fifth Grade

The fifth grade growth was normal during the first semester but showed a large increase during the second part of the year, carrying on the tendency of the two preceding grades.

Diagram 18—Fifth Grade Membership

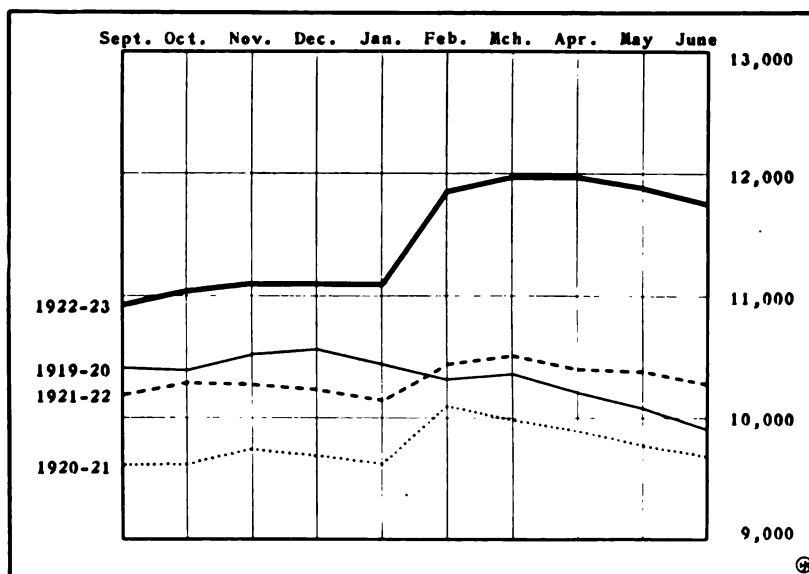


Table 28—Fifth Grade Membership

Month	Membership				Increase 1922-23 over 1921-22	
	1919-20	1920-21	1921-22	1922-23	No.	%
September	10,407	9,610	10,193	10,930	737	7.2
October	10,391	9,620	10,293	11,041	748	7.3
November	10,521	9,736	10,269	11,101	832	8.1
December	10,538	9,692	10,234	11,100	866	8.5
January	10,436	9,621	10,147	11,097	950	9.4
February	10,316	10,096	10,439	11,853	1,414	13.5
March	10,360	9,985	10,509	11,966	1,457	13.9
April	10,210	9,883	10,402	11,965	1,563	15.0
May	10,080	9,768	10,384	11,880	1,496	14.4
June	9,912	9,687	10,281	11,750	1,469	14.3
Av. Membership	10,366	9,792	10,284	11,450	1,166	11.3
Per Cent of Attend.	90.1	92.7	92.1	91.9	-0.2	-0.2

Sixth Grade

Sixth grade growth showed a consistent gain over 1921-22, with the larger growth occurring during the second semester.

Diagram 19—Sixth Grade Membership

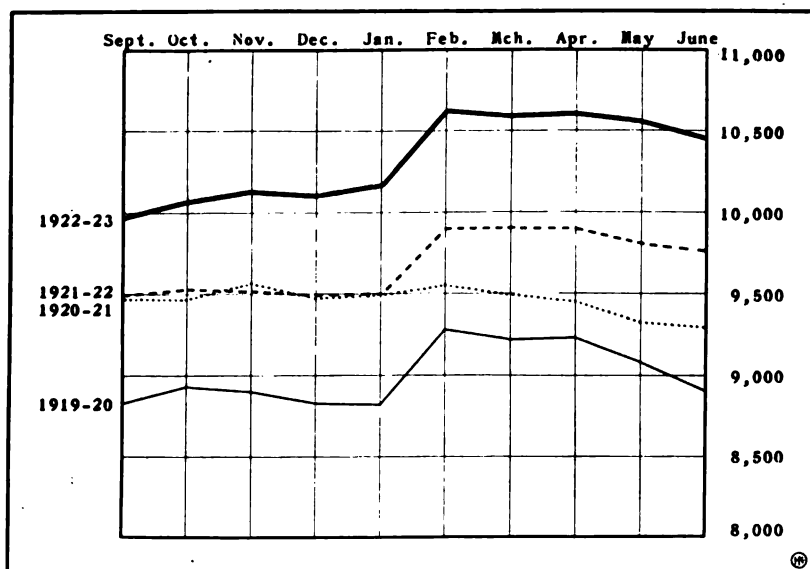


Table 29—Sixth Grade Membership

Month	Membership				Increase	
	1919-20	1920-21	1921-22	1922-23	1922-23 over 1921-22 No.	%
September	8,830	9,470	9,484	9,970	486	5.1
October	8,929	9,467	9,525	10,066	541	5.7
November	8,898	9,564	9,532	10,123	591	6.2
December	8,833	9,476	9,485	10,104	619	6.5
January	8,823	9,493	9,494	10,167	673	7.1
February	9,279	9,553	9,896	10,622	726	7.3
March	9,222	9,492	9,906	10,586	680	6.9
April	9,233	9,452	9,903	10,602	699	7.1
May	9,077	9,326	9,817	10,555	738	7.5
June	8,909	9,295	9,758	10,455	697	7.1
Av. Membership	8,989	9,531	9,654	10,316	662	6.9
Per Cent of Attend.	90.5	92.6	92.3	92.0	-0.3	-0.3

Seventh Grade

The tendency towards a larger seventh grade growth during the second semester has been noticeable for the past four years. The peak load occurred during March, followed by a distinctly downward trend.

Diagram 20—Seventh Grade Membership

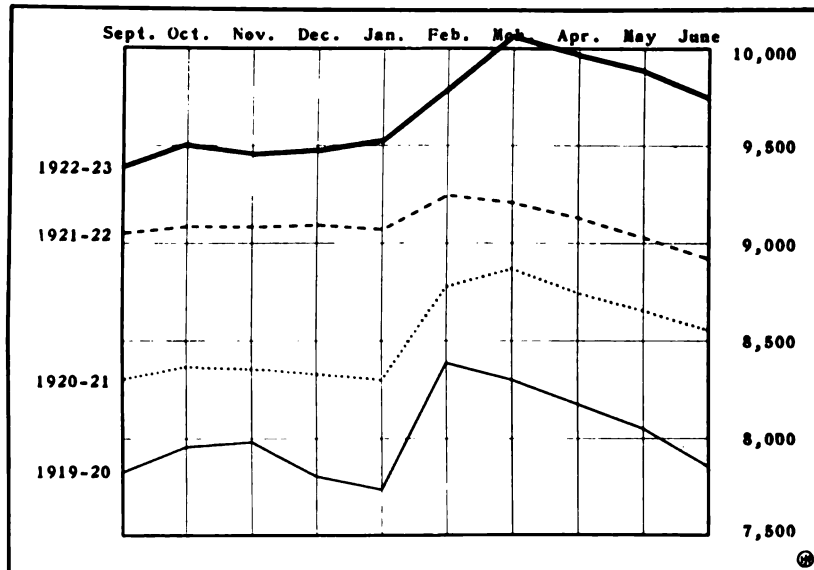


Table 30—Seventh Grade Membership

Month	Membership				Increase	
	1919-20	1920-21	1921-22	1922-23	1922-23 over 1921-22 No.	%
September	7,828	8,306	9,055	9,394	339	3.7
October	7,958	8,363	9,084	9,499	415	4.6
November	7,978	8,356	9,087	9,459	372	4.1
December	7,808	8,327	9,095	9,480	385	4.2
January	7,741	8,301	9,072	9,531	459	5.1
February	8,387	8,776	9,245	9,790	545	5.9
March	8,300	8,865	9,212	10,069	857	9.3
April	8,175	8,743	9,127	9,966	839	9.2
May	8,048	8,650	9,029	9,880	851	9.4
June	7,863	8,555	8,925	9,750	825	9.2
Av. Membership	7,936	8,546	9,075	9,693	618	6.8
Per Cent of Attend.	92.5	92.8	91.9	91.7	-0.2	-0.2

Eighth Grade

Eighth grade membership showed a greater increase over the preceding year during the first than during the second semester, although the numbers were larger in the second half of the year.

Diagram 21—Eighth Grade Membership

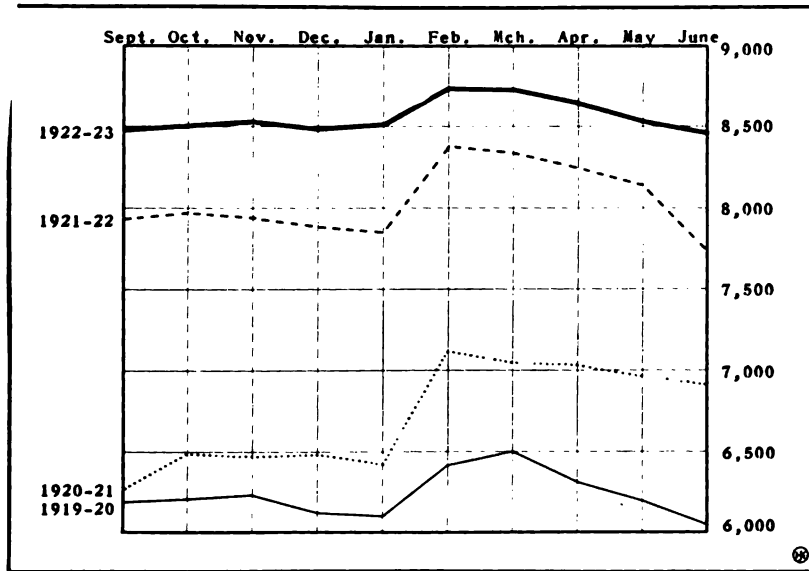


Table 31—Eighth Grade Membership

Month	Membership				Increase over 1921-22	
	1919-20	1920-21	1921-22	1922-23	No.	%
September	6,192	6,273	7,932	8,485	553	7.0
October	6,208	6,487	7,968	8,502	534	6.7
November	6,234	6,472	7,942	8,536	594	7.5
December	6,125	6,486	7,884	8,493	609	7.7
January	6,104	6,419	7,852	8,514	662	8.4
February	6,414	7,115	8,381	8,730	349	4.2
March	6,499	7,046	8,341	8,723	382	4.6
April	6,308	7,028	8,251	8,641	390	4.7
May	6,203	6,958	8,143	8,527	384	4.7
June	6,153	6,912	7,744	8,460	716	9.2
Av. Membership	6,359	6,720	8,048	8,532	484	6.0
Per Cent of Attend.	90.3	93.7	93.0	92.3	—0.7	—0.8

Ninth Grade

Ninth grade membership followed closely the trend of the preceding year except during the month of June. The peak load occurred in March.

Diagram 22—Ninth Grade Membership

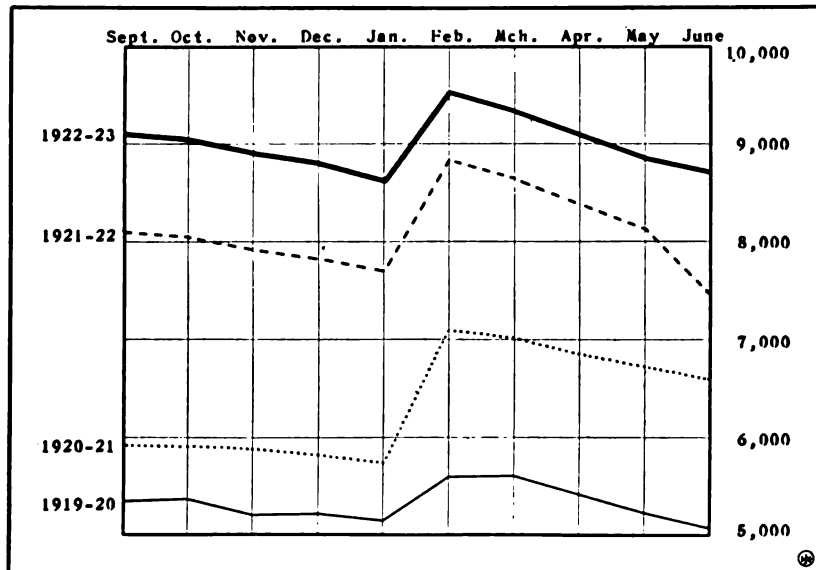


Table 32—Ninth Grade Membership

Month	Membership				Increase	
	1919-20	1920-21	1921-22	1922-23	1922-23 over 1921-22 No.	%
September	5,353	5,933	8,091	9,101	1,010	12.5
October	5,367	5,921	8,050	9,041	991	12.3
November	5,212	5,893	7,919	8,928	1,009	12.7
December	5,215	5,823	7,817	8,802	985	12.6
January	5,151	5,736	7,699	8,616	917	11.9
February	5,600	7,103	8,829	9,530	701	7.9
March	5,609	7,011	8,653	9,327	674	7.8
April	5,425	6,857	8,391	9,091	700	8.3
May	5,226	6,717	8,127	8,844	717	8.8
June	5,074	6,594	7,481	8,710	1,229	16.4
Av. Membership	5,357	6,333	8,173	9,013	840	10.3
Per Cent of Attend.	90.9	92.0	92.0	91.5	—0.5	—0.5

Tenth Grade

Tenth grade tendencies in monthly membership have been fairly consistent for the last four years with the peak load in February followed by a gradual falling off toward the end of the year.

Diagram 23—Tenth Grade Membership

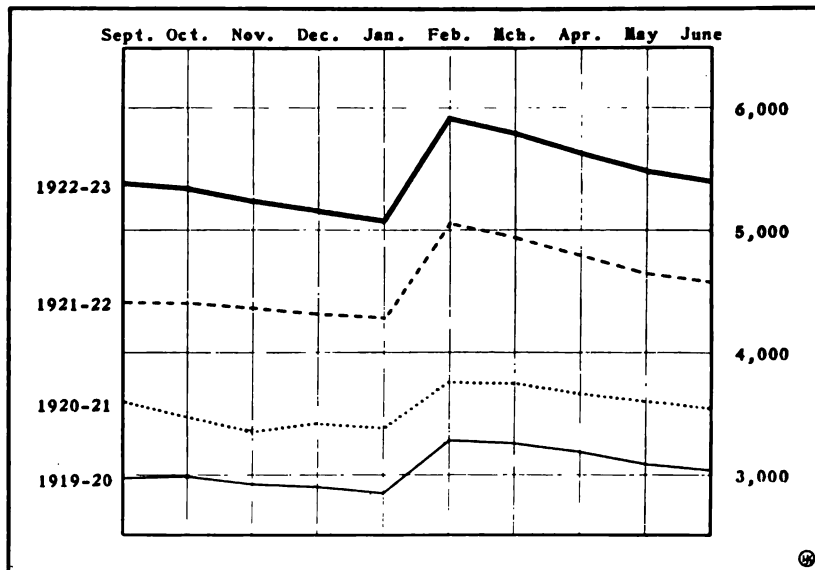


Table 33—Tenth Grade Membership

Month	Membership				Increase	
	1919-20	1920-21	1921-22	1922-23	1922-23 over 1921-22 No.	%
September	2,973	3,600	4,409	5,377	968	21.9
October	2,987	3,473	4,400	5,310	940	21.4
November	2,927	3,348	4,360	5,241	881	20.2
December	2,906	3,418	4,311	5,162	851	19.7
January	2,845	3,374	4,284	5,076	792	18.5
February	3,284	3,751	5,051	5,910	859	17.0
March	3,258	3,754	4,943	5,791	848	17.1
April	3,192	3,665	4,793	5,626	833	17.4
May	3,088	3,596	4,645	5,479	834	17.9
June	3,040	3,544	4,581	5,394	813	17.7
Av. Membership	3,058	3,571	4,599	5,466	867	18.8
Per Cent of Attend.	92.4	92.6	92.6	92.3	-0.3	-0.3

Eleventh Grade

A large number of students dropped out of the school during the eleventh grade. The year was followed by a very low enrollment during February.

Diagram 3—Eleventh Grade Membership

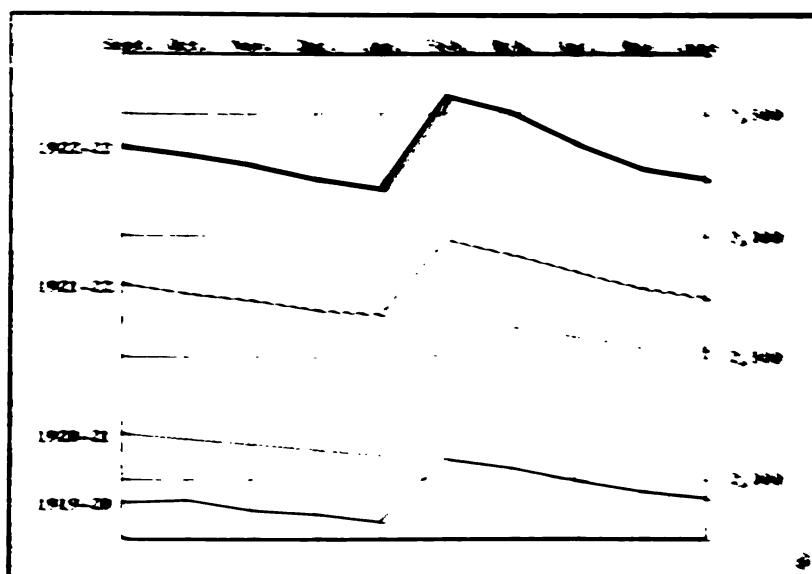


Table 34—Eleventh Grade Membership

Month	Membership				Increase	
	1919-20	1920-21	1921-22	1922-23	No.	%
September	1,907	2,106	2,794	3,363	569	20.4
October	1,915	2,166	2,760	3,333	575	20.8
November	1,872	2,144	2,733	3,290	557	20.4
December	1,856	2,123	2,690	3,236	546	20.3
January	1,822	2,095	2,678	3,192	516	19.3
February	2,079	2,635	2,977	3,372	395	20.0
March	2,045	2,622	2,929	3,302	532	19.9
April	1,994	2,578	2,853	3,373	520	18.2
May	1,943	2,536	2,779	3,270	491	17.7
June	1,922	2,524	2,743	3,228	483	17.7
Ave. Membership	1,934	2,367	2,806	3,347	541	19.3
Pct. Cent. of Attend.	92.3	93.4	93.3	93.8	0.5	0.5

ANNUAL REPORT

Colleges

Junior College membership was higher than in 1921-22 during the first five months but fell below that of the previous year during the second semester.

Teachers College showed a larger increase during the first semester and showed a smoother curve than in 1921-22.

Diagram 26—Membership of Colleges

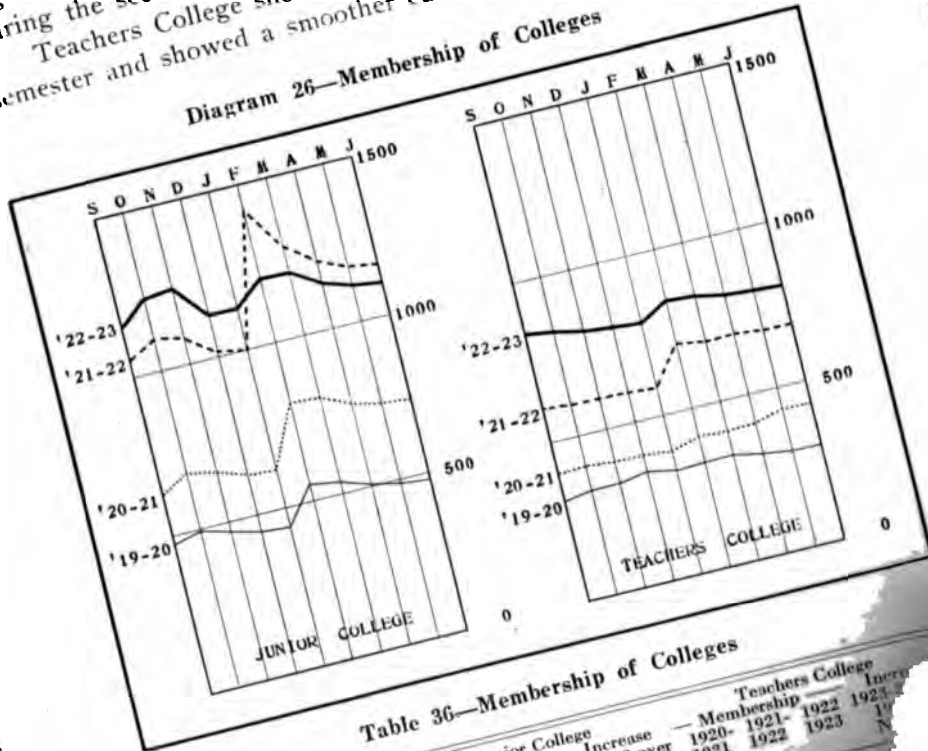


Table 36—Membership of Colleges

Month	Junior College			Increase		Teachers College			Increase
	1920-1921	1921-1922	1922-1923	No.	%	1920-1921	1921-1922	1922-1923	
September	629	1,052	1,156	104	9.9	402	605	838	233
October	675	1,097	1,227	130	11.9	405	598	827	232
November		1,081	1,236	155		394	595	808	214
December			1,128	112				797	
January				129					

Continuation

Continuation membership followed closely that of the preceeding year, dropping below during December and February.

Diagram 27—Continuation Classes Membership

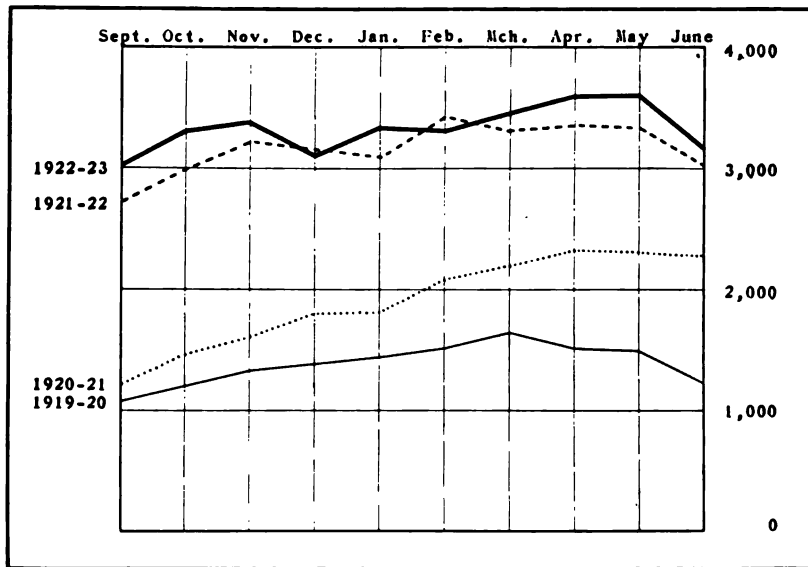


Table 37—Continuation Classes Membership

Month	Membership				Increase	
	1919-20	1920-21	1921-22	1922-23	1922-23 over 1921-22 No.	1921-22 %
September	1,077	1,220	2,721	3,020	299	9.9
October	1,203	1,461	2,987	3,301	314	9.1
November	1,327	1,605	3,222	3,378	156	4.6
December	1,381	1,799	3,161	3,108	-53	-1.7
January	1,438	1,811	3,101	3,333	232	7.0
February	1,514	2,075	3,426	3,312	-114	-3.5
March	1,641	2,187	3,314	3,448	134	3.9
April	1,510	2,314	3,355	3,592	337	9.4
May	1,488	2,304	3,332	3,298	-34	-1.0
June	1,225	2,277	3,000	3,172	144	4.8
Total	1,704	2,288	3,288	3,288	77	2.4
Average	86.7	80.4	80.4	80.4	-6.9	-7.9

Table 39—Day School Registration, 1921-1923

	1921-22			1922-23		
	Boys	Girls	Total	Boys	Girls	Total
KINDERGARTEN	9,372	9,414	18,786	10,055	9,987	20,042
1st	11,120	10,544	21,664	11,291	10,670	21,961
2nd	9,072	8,690	17,762	9,426	8,942	18,368
3rd	7,357	7,129	14,486	8,789	8,511	17,300
4th	6,428	6,527	12,955	7,526	7,370	14,896
5th	5,601	5,710	11,311	6,221	6,202	12,423
6th	5,214	5,203	10,417	5,386	5,725	11,111
TOTAL ELEMENTARY	44,792	43,803	88,595	48,639	47,420	96,059
7th	4,883	5,006	9,889	5,104	5,132	10,236
8th	4,130	4,354	8,484	4,528	4,681	9,212
9th	4,120	4,076	8,196	4,661	4,894	9,555
TOTAL INTERMEDIATE	13,433	13,436	26,869	14,293	14,710	29,003
10th	2,273	2,271	4,544	2,787	2,811	5,598
11th	1,548	1,348	2,896	1,823	1,742	3,565
12th	1,015	1,008	2,023	1,164	1,197	2,361
TOTAL HIGH	4,836	4,627	9,463	5,774	5,750	11,524
Post Graduates	42	29	71	44	65	109
Special A	808	340	1,148	854	397	1,251
Special B	662	282	944	602	416	1,018
Special Preparatory	290	170	460	269	91	360
Special Advanced	121	103	224	16	21	37
Ungraded	312	11	323	270	8	278
Open Air	113	116	289	272	270	542
Open Window	10	10	20	72	66	138
Classes for Blind	49	38	87	65	60	125
Classes for Deaf	91	86	177	91	92	186
Classes for Crippled	118	96	214	138	112	250
Americanization	228	160	388	185	162	347
TOTAL SPECIAL CLASSES	2,832	1,412	4,244	2,837	1,695	4,532
Voc. Classes, Boys	45	...	45	...	...	...
Voc. Classes, Soldiers	706	37	743	513	18	531
Continuation, Jr.	2,335	2,529	4,864	3,196	2,788	5,984
Continuation, Sr.	145	356	501	60	545	605
Continuation, B	45	37	82	...	...	...
TOTAL CONTINUATION	3,276	2,959	6,235	3,769	3,351	7,120
Junior College	827	305	1,132	871	457	1,328
Teachers College	17	618	635	31	859	890
College of Med. and Sur.	174	6	180	186	7	193
TOTAL COLLEGES .....	...	...	1,947	1,088	1,323	2,411
GRAND TOTAL .....	...	...	...	5,499	84,301	170,800

Table 40—Analysis of Lefts, 1922-23

DIVISION	Other rooms	Other buildings	Detroit parochial schools	Other cities in Michigan	Other states and countries	Reform school	Institute for defectives	Employment permits	Marriage	Over legal age limit	Deaths	Others
KDGN.....	915	1,926	168	463	358	2	2			3	27	1,198
1st.....	5,651	4,093	439	960	722	18	5			2	38	965
2nd.....	3,655	3,413	352	780	595	9	6	2		1	25	305
3rd.....	2,512	3,272	346	752	622	18	2	2		3	26	222
4th.....	1,961	2,769	297	640	499	18	5	5	2	7	20	205
5th.....	1,326	1,979	193	508	367	22	4	25	3	12	5	160
6th.....	985	1,513	154	392	342	10	5	37	4	25	6	126
Total Elem....	16,090	17,039	1,781	4,032	3,147	95	27	71	9	50	120	1,983
7th.....	840	1,202	150	295	329	19	7	86	4	64	7	201
8th.....	481	826	108	241	253	13	2	116	6	63	9	200
9th.....	323	728	135	268	199	5	2	348	24	333	13	363
Total Inter....	1,644	2,756	393	804	781	37	11	550	34	460	29	764
10th.....	38	391	63	92	96	4		150	27	367	2	196
11th.....	12	105	21	23	46			12	6	425	3	185
12th.....	3	30	5	14	11			8	3	190		167
Total High....	53	526	89	129	153	4		170	36	982	5	548
Special A.....	64	385	63	55	29		10	6			5	45
Special B.....	308	380	53	81	37	16	6	53	3	88	4	38
Special Prep....	6	92	6	26	12	1		45	2	40		18
Special Adv....					1							
Ungraded.....	23	105	3	10	15	19	1	34	2	24		16
Open Air.....	31	126	11	14	4							25
Open Window	148	26	1	9	1							8
Blind.....	7	19	4	3	3							13
Deaf.....		5		3			2				1	5
Crippled.....	17	4	5	4	5	2		2				2
Ameri'zation..	40	45	3	4	11			11		27		7
Total Special	644	1,187	149	209	118	38	19	151	7	179	10	177
Sr. Cont. (Cs.)												261
Jr. Cont. (Cs.)		308	99	226	142	36	4	7	4	1,985	5	257
Cont. (Com.)..		30	9	21	9			7	4	245		44
Girls Cont....		265	3	57	62	7		15	83	1,614	2	221
Trade Dress..	1	91	9	5	7				4	12		85
Voc. Soldiers..												409
Total Cont....	1	694	120	309	220	43	4	29	95	3,856	7	1,277
Junior College												279
Teachers Col..												112
Total College..												391
Post Grad....					1					50		1
Grand Total...	19,347	24,128	2,700	5,946	4,778	219	63	971	181	5,580	198	6,339
Percent of Registration	11.3	14.1	1.6	3.5	2.8	.1	.03	.6	.1	3.3	.1	3.7

Table 41—Evening School Statistics, 1922-23

School	ELEMENTARY					HIGH					TOTAL				
	Registration		Average Membership		Per Cent Attendance	Registration		Average Membership		Per Cent Attendance	Registration		Average Membership		Per Cent Attendance
	Men	Women	Men	Women		Men	Women	Men	Women		Men	Women	Men	Women	
Cass.....	898	71	575	381	66.3	4,366	281	3,198	2,327	72.8	5,264	352	3,773	2,708	71.8
Central.....	478	227	415	269	61.8	370	993	737	379	51.4	848	1,220	1,152	648	56.3
Central Acad.....	...	...	...	...	...	965	506	969	616	63.6	965	506	969	616	63.6
Commerce.....	...	...	...	...	...	694	622	1,092	621	56.9	694	622	1,092	621	56.9
Eastern.....	603	204	537	361	67.2	690	1,024	963	552	57.3	1,293	1,228	1,500	913	60.9
Northeastern.....	798	195	551	326	59.2	356	464	484	303	62.6	1,154	659	1,035	629	60.8
Northern.....	312	263	350	233	66.6	658	999	918	507	55.2	1,000	1,262	1,268	740	58.4
Northwestern.....	203	136	193	111	57.5	501	1,019	893	515	57.7	704	1,155	1,086	626	57.6
Southeastern.....	328	137	240	173	72.1	482	736	623	366	58.7	810	873	863	539	62.5
Southwestern.....	364	35	238	117	61.7	351	513	494	285	57.7	715	548	732	432	59.0
Western.....	195	46	150	88	58.7	319	449	400	258	64.5	544	495	550	346	62.9
Bishop.....	385	248	148	364	81.2	...	...	...	...	...	385	248	448	364	81.2
Davison.....	202	56	156	117	75.0	...	...	...	...	...	202	56	156	117	75.0
Dwyer.....	348	191	315	168	53.3	...	...	...	...	...	348	191	315	168	53.3
Ellis.....	442	136	290	182	62.7	...	...	...	...	...	442	136	290	182	62.7
Garfield.....	563	330	417	277	58.1	...	...	...	...	...	563	330	477	277	58.1
Extension.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Classes.....	1,283	778	1,642	1,160	70.6	...	...	...	...	...	1,283	778	1,642	1,160	70.6
Total.....	7,432	3,053	6,577	4,357	66.2	9,782	7,606	10,771	6,729	62.5	17,214	10,659	17,348	11,086	63.9
Junior College.....	...	...	...	...	...	...	...	...	...	...	604	528	652	444	68.1
Teachers Coll.....	...	...	...	...	...	...	...	...	...	...	161	1,920	2,221	2,057	92.6
Total College.....	...	...	...	...	...	...	...	...	...	...	765	2,448	2,873	2,501	87.1
Grand Total.....	7,432	3,053	6,577	4,357	66.2	9,782	7,606	10,771	6,729	62.5	17,979	13,107	20,221	13,587	67.2

Table 42—Analysis of Evening School Registration by Course of Study

	Elementary		High School	
	Men	Women	Men	Women
Citizenship.....	1,551	30		
English for Foreigners.....	1,777	2,122		
Fifth and Sixth Grades.....	281	215		
Seventh and Eighth Grades.....	823	310		
Health.....			817	1,185
Languages.....			1,110	771
Exact Science.....			2,103	180
Social Science.....			39	11
Vocational.....		16	5,131	5,083
Fine Arts.....			282	76
Total.....	7,132	3,053	9,782	7,606
Total Men and Women.....	17,211		10,659	
Grand Total.....			27,873	



View looking down street from the entrance to the "A" School - New Orleans, La.

Table 43—Summer Schools, 1922

	Registration Boys	Girls	Total	Member- ship at close	Average Member- ship	Average Attendance	Per Cent Attendance
High Schools							
Cass	453	87	540	531	510.9	487.4	95.4
Central	811	1,182	1,993	1,838	1,886.4	1,770.7	93.8
Total High	1,264	1,269	2,533	2,369	2,397.3	2,258.1	94.2
Elementary (Grades 5-8)							
Bishop	572	647	1,219	1,211	1,198.0	1,049.3	87.6
Davison	224	216	440	430	428.4	394.5	92.1
Eastern	358	295	653	637	635.8	511.9	80.5
Ellis	344	373	717	683	689.0	597.7	86.7
Franklin	183	244	427	370	392.2	334.5	85.3
Garfield	554	520	1,074	1,005	1,032.4	929.4	90.0
Greenfield Park ..	80	98	178	171	171.4	130.2	76.0
Hely	364	348	712	710	703.6	560.1	79.7
Longfellow	106	111	217	206	208.3	190.3	91.3
Northern	535	523	1,058	996	1,024.0	894.9	87.4
Northwestern	361	305	666	663	658.2	545.6	82.9
Ruthruff	60	61	121	118	116.5	97.4	83.6
Southeastern	382	320	702	623	651.9	558.3	85.6
Southwestern	317	270	587	533	543.6	502.7	92.5
Webster	69	84	153	150	147.8	118.7	80.3
Total Elementary ...	4,509	4,415	8,924	8,506	8,600.1	7,415.5	86.2
Marr (K-1)	203	134	337	301	313.6	270.2	86.2
Special Preparatory							
Bishop	21	9	30	30	30.0	29.6	98.6
Southwestern	22	.....	22	20	19.7	17.9	90.8
Total Sp. Prep.	43	9	52	50	49.7	47.5	95.5
Open Air							
Clippert	13	16	29	53	54.0	47.7	88.5
Detroit Sanitarium	11	12	23	18	16.8	15.9	94.7
Marr	34	24	58	55	52.2	44.3	85.0
Maybee	21	11	62	51	57.8	55.2	95.5
Northville	41	48	89	79	73.8	69.7	94.5
Russell	34	28	62	57	59.5	53.8	90.4
Stephens	34	25	59	52	52.6	43.1	81.9
Total Open Air	188	194	382	365	366.7	329.7	89.9
Colleges							
Junior Coll.	188	70	258	227	236.9	228.1	96.3
Teachers Coll.	92	873	965	963	963.0	954.0	99.0
Total Colleges	280	943	1,223	1,190	1,199.9	1,182.1	98.5
Continuation	1,457	1,201	2,658	1,960	1,455.9	1,227.7	84.3
Grand Total	7,944	8,165	16,109	14,741	14,383.2	12,730.8	88.5

Elementary School Failures
Diagram 29—Per Cent of Failures by Grades

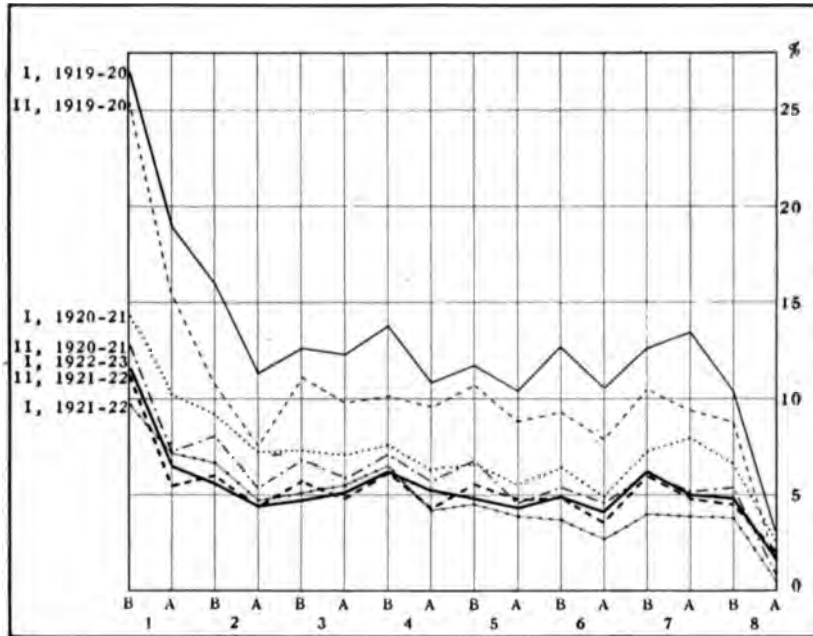


Table 44—Failures in Elementary Schools

Grade	1919-20		1920-21		1921-22		1922-23
	1st Sem.	2nd Sem.	1st Sem.	2nd Sem.	1st Sem.	2nd Sem.	1st Sem.
B1 Z	...	...	...	...	33.3	24.0	27.7
B1 Y	...	...	...	...	4.1	6.9	6.1
B1 X	...	...	...	...	0	1.3	1.7
B1	27.0	25.5	14.3	12.8	9.7	11.3	11.7
A1 Z	...	...	...	...	25.0	14.7	16.5
A1 Y	...	...	...	...	0	3.1	2.8
A1 X	...	...	...	...	0	0.7	0.9
A1	19.0	15.5	10.2	7.3	7.2	5.5	6.5
B2 Z	...	...	...	...	25.0	14.2	14.5
B2 Y	...	...	...	...	0	4.2	3.0
B2 X	...	...	...	...	0	0.2	0.4
B2	16.0	10.8	9.2	8.1	6.7	6.0	5.6
A2 Z	...	...	...	...	...	13.3	11.2
A2 Y	...	...	...	...	...	2.5	2.9
A2 X	...	...	...	...	...	0.3	0.2
A2	11.3	7.6	7.2	5.4	4.7	4.4	3.4
B3	12.6	11.1	7.3	6.8	5.1	5.7	4.7
A3	12.3	9.8	7.1	5.9	5.5	4.8	5.1
B4	13.8	10.1	7.6	7.1	6.5	6.1	6.2
A4	10.8	9.6	6.3	5.7	4.2	4.3	5.2
B5	11.7	10.7	6.6	6.8	4.5	5.6	4.8
A5	10.4	8.8	5.5	4.6	3.9	4.8	4.3
B6	12.7	9.3	6.4	5.4	3.7	4.9	4.9
A6	10.5	7.9	4.9	4.6	2.7	3.6	4.1
B7	12.6	10.5	7.2	6.1	4.0	6.0	6.2
A7	13.4	9.4	7.9	5.2	3.9	4.8	5.0
B8	10.4	8.8	6.6	5.4	3.8	4.5	4.8
A8	3.1	1.7	2.6	0.9	0.6	1.9	1.6
Total	14.7	11.7	8.4	6.7	6.1	5.6	5.8

Secondary School Failures

Diagram 30—Per Cent of Failures, Intermediate Schools

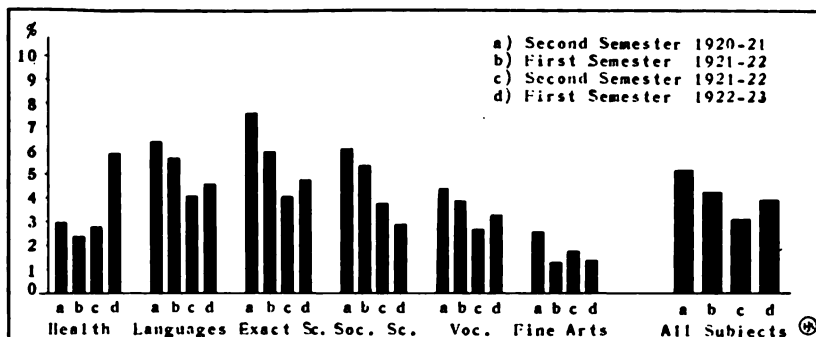


Table 45—Failures in Intermediate Schools

Semester	School Year	Health No.	Health %	Languages No.	Languages %	Exact Sciences No.	Exact Sciences %	Social Sciences No.	Social Sciences %	Vocational No.	Vocational %	Fine Arts No.	Fine Arts %	Total No.	Total %
2nd...	1920-21	91	3.0	274	6.4	358	7.6	238	6.1	329	4.5	92	2.6	1,382	5.18
1st...	1921-22	88	2.4	277	5.7	328	6.0	283	5.4	302	3.9	66	1.3	1,344	4.24
2nd...	1921-22	130	2.8	266	4.1	389	4.1	365	3.8	318	2.7	184	1.8	1,652	3.13
1st...	1922-23	502	5.9	318	4.6	503	4.8	327	2.9	396	3.3	118	1.4	2,164	3.95

Diagram 31—Per Cent of Failures, High Schools

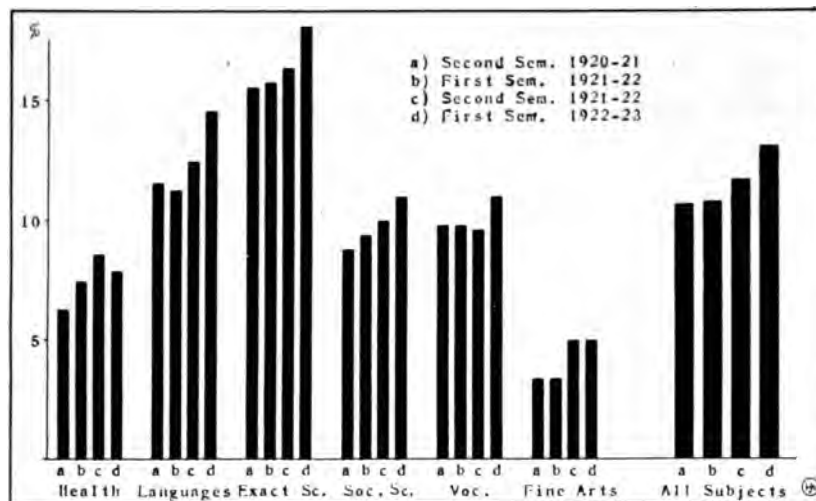


Table 46—Failures in High Schools

Semester	School Year	Health No.	Health %	Languages No.	Languages %	Exact Sciences No.	Exact Sciences %	Social Sciences No.	Social Sciences %	Vocational No.	Vocational %	Fine Arts No.	Fine Arts %	Total No.	Total %
2nd...	1920-21	567	6.3	2,602	11.6	2,686	15.6	800	8.8	1,799	9.8	158	3.4	8,612	10.7
1st...	1921-22	740	7.5	3,229	11.3	3,176	15.8	962	9.4	2,078	9.8	203	3.4	10,388	10.8
2nd...	1921-22	884	8.6	3,484	12.5	3,482	16.4	920	10.0	1,895	9.6	283	5.0	10,948	11.7
1st...	1922-23	842	7.9	3,947	14.6	3,856	18.1	989	11.0	2,097	11.0	267	5.0	11,998	13.1

Table 47—Relation of School Census to Children Served

Age Group	Census ¹ 1922	Public Schools	Non-Public Schools	Total Served	Total Number Not in School
5.....	20,613	8,920	1,194	10,114	10,449
6.....	20,712	13,100	2,666	15,766	4,946
7.....	20,485	13,855	4,596	18,451	2,034
8.....	19,727	13,128	5,525	18,653	1,074
9.....	18,629	12,218	5,555	17,773	856
10.....	17,224	11,137	5,323	16,460	764
11.....	16,095	10,449	4,917	15,366	729
12.....	16,007	10,490	4,825	15,315	692
13.....	14,916	10,009	4,258	14,267	649
14.....	15,004	10,537	3,703	14,240	764
15.....	13,341	9,458	2,768	12,226	1,115
16.....	12,096	7,191	1,852	9,043	3,053
17.....	12,287	3,719	1,068	4,787	7,500
18.....	12,839	1,959	757	2,716	10,123
19.....	11,624	1,031	518	1,549	10,075
Total.....	241,599 ¹	137,201	49,525	186,726	54,873

¹—Includes proportional distribution of 6,573 children not tabulated in original age-group calculations.

Table 48—Per Cent Distribution of Census Relation to Children Served

Age Group	Census 1922	Public Schools	Non-Public School	Total Served	Total Number Not in School
5.....	100	43.3	5.8	49.1	50.9
6.....	100	63.2	12.9	76.1	23.9
7.....	100	67.6	22.5	90.1	9.9
8.....	100	66.6	28.0	94.6	5.4
9.....	100	65.6	29.8	95.4	4.6
10.....	100	64.7	30.9	95.6	4.4
11.....	100	64.9	30.6	95.5	4.5
12.....	100	65.5	30.2	95.7	4.3
13.....	100	67.1	28.5	95.6	4.4
14.....	100	70.2	24.7	94.9	5.1
15.....	100	70.9	20.7	91.5	8.3
16.....	100	59.4	15.4	74.8	25.2
17.....	100	30.3	8.7	39.0	61.0
18.....	100	15.3	5.9	21.2	78.8
19.....	100	8.9	4.4	13.3	86.7
Total.....	100	56.8	20.5	77.3	22.7

An analysis of the following table shows the relatively larger increases in school membership over those in total population school census.

Table 49—Growth of City and Schools

Year	City Population	Per Cent Increase over 1910-11	School Census	Per Cent Increase over 1910-11	November Membership	Per Cent Increase over 1910-11
1911	465,766	....	109,231	....	47,857	....
1912	499,030	7.1	113,380	3.8	49,448	3.4
1913	536,139	15.1	118,622	8.6	54,585	14.0
1914	567,920	21.9	130,664	19.6	60,570	26.4
1915	595,000	27.7	133,339	22.1	69,086	44.2
1916	678,746	45.7	137,907	26.3	77,939	62.8
1917	734,562	57.7	148,058	35.5	86,974	81.6
1918	820,778	76.2	163,217	49.4	95,023	98.5
1919	900,000	93.2	187,849	72.0	105,317	120.0
1920	950,000	103.9	201,023	84.0	116,475	143.2
1921	993,739	113.3	222,789	104.0	122,690	156.2
1922	942,373	102.3	239,712	119.5	136,930	186.0
1923	1,075,000	130.8	241,599	121.2	146,587	206.3

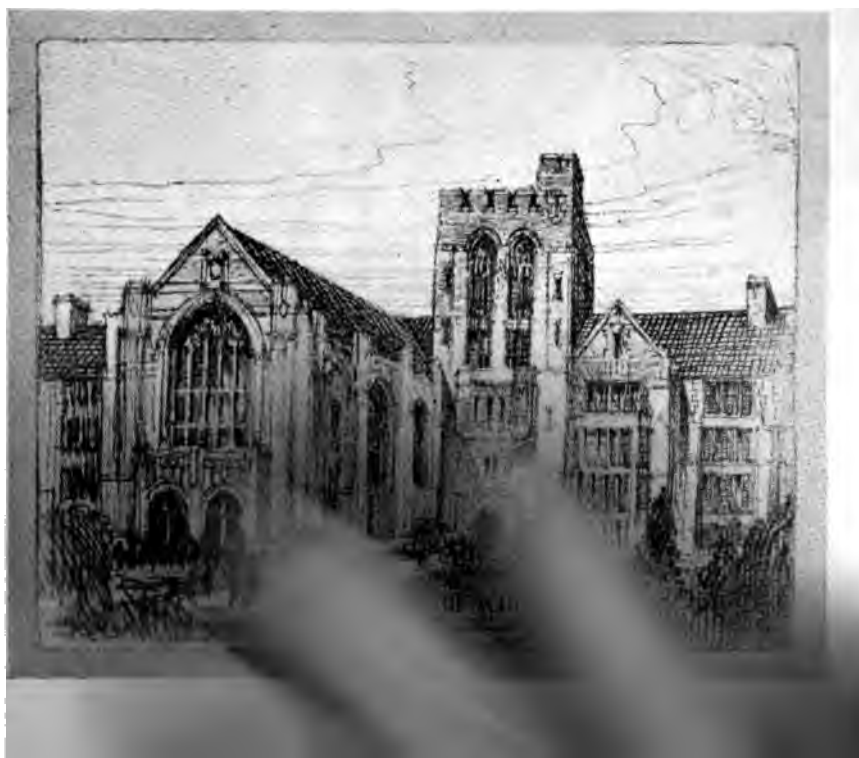
A study of the age groups upon the basis of the school census since 1873 shows a fairly consistent agreement in proportional representation at the several ages.

Table 50—Distribution of School Children According to Age

	1873	Per Cent Distri- bution	1904	Per Cent Distri- bution	1921	Per Cent Distri- bution	1922	Per Cent Distri- bution
.....	3,170	9.9	7,395	8.3	20,999	8.8	20,613	8.5
.....	2,313	7.2	6,552	7.3	20,361	8.6	20,712	8.6
.....	2,434	7.6	6,393	7.1	19,245	8.1	20,485	8.5
.....	2,246	7.0	6,233	7.0	18,260	7.7	19,727	8.2
.....	2,110	6.6	6,310	7.1	16,597	7.0	18,629	7.7
.....	2,248	7.0	6,470	7.2	16,203	6.8	17,224	7.1
.....	2,085	6.5	5,912	6.6	14,750	6.2	16,095	6.7
.....	2,219	7.0	6,349	7.1	15,253	6.4	16,007	6.6
.....	2,087	6.5	5,221	5.8	14,717	6.2	14,916	6.2
.....	2,050	6.4	5,750	6.4	13,931	5.9	15,004	6.2
.....	1,917	6.0	5,443	6.1	12,032	5.1	13,341	5.5
.....	1,904	6.0	5,375	6.0	12,603	5.3	12,096	5.0
.....	1,697	5.3	5,208	5.8	13,473	5.7	12,287	5.1
.....	1,563	5.0	5,169	5.8	15,042	6.3	12,839	5.3
.....	1,746	6.0	5,737	6.4	14,023	5.9	11,624	4.8
.....	31,936	100.0	89,517	100.0	237,489	100.0	241,599	100.0

Table 54—High Schools, 1922-23.

Schools	Total Registration	Average Membership	Average Attendance	Per cent of Attendance	No. belonging at close	No. Instructors excluding prin. and clerks	Pupils per in- structor based on av. memb.	No. Graduates	
								Boys	Girls
Cass.....	2,565	2,629.7	2,454.9	93.35	2,516	129	20.4	157	13
Central.....	1,931	1,726.7	1,618.5	93.73	1,687	71	24.3	205	163
H. S. Commerce.....	1,141	1,090.0	984.8	90.35	959	39	27.9		31
Eastern.....	2,055	1,992.7	1,846.1	92.64	1,946	73	27.3	150	152
Northeastern....	1,849	1,749.4	1,560.3	89.19	1,691	69	25.3	44	35
Northern.....	2,731	2,552.5	2,359.1	92.42	2,562	93	27.4	132	191
Northwestern....	3,441	3,197.6	2,991.8	93.56	3,093	122	26.2	217	241
Southeastern....	1,746	1,686.4	1,574.9	93.39	1,651	66	25.5	53	76
Southwestern....	1,055	1,012.8	932.2	92.04	916	41	24.7	46	59
Western.....	1,547	1,277.8	1,181.4	92.45	1,109	47	27.2	90	110
Total.....	20,061	18,915.6	17,504.0	92.53	18,130	750	25.2	1,094	1,071



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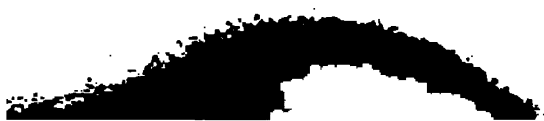
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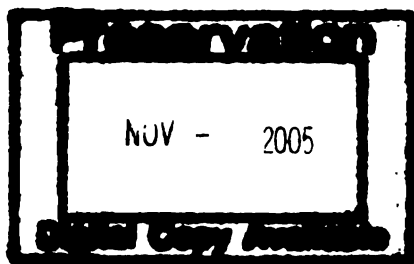
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